Oil, Paint and Drug Reporter.

VOL. XXXIV. No. 19. NEW YORK, WEDNESDAY, NOVEMBER 7, 1888. PRICE PER YEAR, If paid in advance, $4.00. $6.00.

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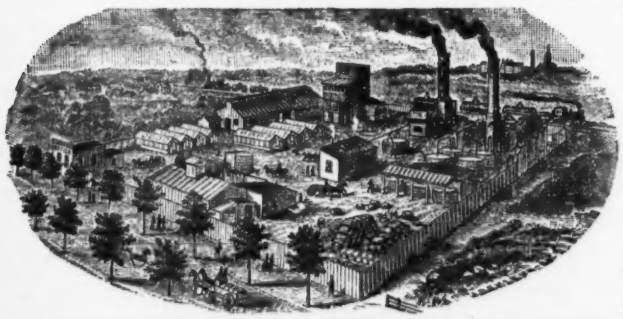

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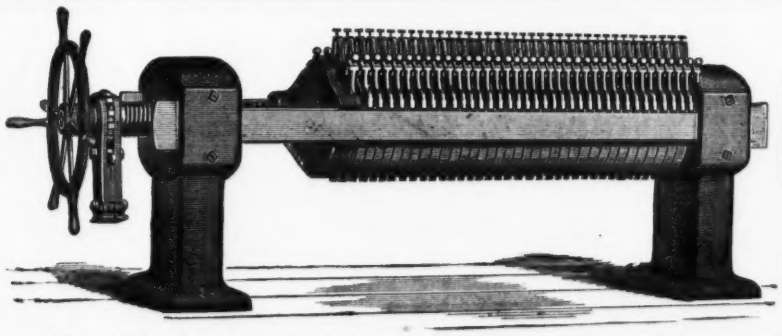

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DRUG, PAINT AND OIL TRADE, NEW YORK DRUG BULLETIN, NEW YORK DRUGGISTS' PRICE CURRENT, SOAP-MAKERS' JOURNAL, OIL AND PAINT REVIEW, and WEEKLY DRUG NEWS.

OIL, PAINT & DRUG PUBLISHING CO., Proprietors.

FRANKLIN H. TINKER, Treas. & Manager. W. B. TEMPLETON, Secretary.

PUBLISHED EVERY WEDNESDAY at 72 William street, New York.

SUBSCRIPTION RATE.

One year, including postage.....$6.00.
If paid in advance.....$4.00.
To all foreign countries, including postage.....$6.00.

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WEDNESDAY, NOV. 7, 1888.

LEADING TOPICS THIS WEEK.

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WEEKLY REVIEW.

Money is unchanged. Call loans rule at 2 per cent. Time loans are quoted at 3½@4%. The supply of commercial paper is moderate and the demand is good. We quote 60 to 90 day's indorsed bills receivable at 4¾@5 per cent, first class four months' commission house names at 5¼@5½, and good single names—jobbers—having four to six months to run at 5½@6¼. Following are the rates of exchange on New York: Savannah, buying ⅛ discount selling par, Charleston, buying 3-16@¼ discount, selling par. New Orleans commercial, $1 25 per $1,000 discount; bank par. St. Louis, 75c per $1,000 discount. Chicago, par. Sterling exchange is higher and firm.

Sterling, 60 days, nominal	$4 85	@4 85½
sight, nominal	4 88½	@
60 days, actual	4 84¼	@4 85
sight, actual	4 87¾	@4 88
Cable transfers	4 88	@4 88½
Commercial, 60 days	4 83¾	@4 83
Paris, 60 days	5 22½	@5 21⅝
sight	5 18¾	@5 1 1⅛
com., 60 days	5 24⅜	@5 24¼
com., sight	5 20⅝	@5 20
Antwerp, 60 days	5 25	@5 24⅜
Swiss, 60 days	5 23⅛	@5 22½
sight	5 19¾	@5 18¾
Reich marks (4) 60 days	95¼	@95¼
(4) sight	95⅝	@95¾
(4) nom., 60 days	94¾	@94⅞
(4) com., sight	95¼	@95⅝
Guilders, 60 days	40⅛	@40 3-16
sight	40 5-16	@40⅜
com., 60 days	40	@40 1-16
com., sight	40 3-16	@40¾
Copenhagen, Stockholm and Christana, Krona, 60 days	26¾	@26⅞
sight	27	@27⅛

STRENGTHENING THE REBATE PLAN.

The evidence that the Rebate Plan on proprietary medicines had been materially strengthened by the meeting of wholesale druggists at St. Louis a fortnight ago, which appeared in the published report of the proceedings, is fully confirmed by the impression made upon those who were present and were able to judge of the sincerity of what was said and done. There is a confident feeling among all of these persons that the pledges made at the St. Louis meeting were in full accord with what experience has shown to be necessary if the Rebate Plan is to be preserved, or if the trade are to reap a fair measure of the benefits which it theoretically affords. It has leaked out, without the mention of any names, that some of the western jobbers who have been charged with violations of the plan, or at least a want of good faith in its observance, were brought face to face with their accusers, and an opportunity given both sides to "have it out" without any other auditors than those who were directly interested in the facts and had a right to know them. The result was highly salutary. It was shown that the direct and indidirect evasions of the plan which have been increasing in number during the past two years, have not been so cunningly carried on as to escape detection, and that, probably, very promptly. A number of erring brothers, who believed that their infractions of the plan were not really known, but merely surmised by their neighbors who were probably doing something similar themselves, had their eyes opened, by the plain talk at St. Louis, to the unpleasant fact that while they may, by constant protestations of guilelessness, have convinced themselves that they were honestly living up to their contracts, they have not similarly deceived most of their competitors in trade.

Now that the fact is developed that whether a man is honestly supporting the Rebate Plan or not is known to his competitors without his furnishing them any evidence, there is a stronger disposition manifested by all the parties interested, to faithfully observe their obligations. That this is really the case is shown by the stringent regulations agreed upon to govern not only jobbing firms but their salesmen as well. The latter class has constituted an important factor in the violations of the plan, both as offenders and as a means of others offending. If the contract binding salesmen and the provisions for enforcing it are strictly observed, there is little opportunity left for evasions to be practised without their being so barefaced that no house would be likely to undertake them. The St. Louis meeting has, therefore, shown the plan to be in high favor, even by those who have covertly undertaken in the past to overthrow it, and has greatly strengthened it by lessening the opportunity for its violation. This being done, the attention of those in the plan is being given to a little needed reformation among the manufacturers who have adopted the contract. No small share of the trouble caused by jobbing violations, is due to the lack of a firm support of the plan by certain proprietors. These proprietors were led to adopt the contract system, in the first place, because they were advised or believed that it would lead jobbers to take a more active interest in their goods. They went into the plan, therefore, simply as a bid for good will and not with any realization of the obligations they personally assumed by so doing. The result has been that when an occasion arose for rigidly enforcing their contract, they have not been found ready to grant that aggressive support, even at the expense of a good customer, if necessary, which is incumbent upon proprietors if the plan is to succeed. The Rebate Plan has always been overloaded with goods of little importance, and as the proprietors of such articles have not gained the prestige which they hoped for by adopting the contract, they are naturally but lukewarm supporters of the scheme, and their withdrawal from it would strengthen it by lessening the opportunities for violations, which, while they may be of no consequence in themselves, become serious as precedents if not promptly checked. What is admitted to be needed now is a pruning of the Rebate list down to the goods that are of sufficient prominence to be of value as "leaders" in the trade, and also the weeding out of such proprietors as are on the plan simply for effect and are unwilling or unable to control their goods and rigidly enforce their contracts. Such a work, supplementing that done at St. Louis, would make the Plan a thoroughly practical means of regulating the distribution of proprietery goods, beyond which, in its present form at least, the system is not likely to go.

THE ADVANCE IN TONKA BEANS.

Although not usually considered a very important article in the drug trade Para tonka beans are just now attracting considerable attention because of the recent advance in prices and the paucity of supplies. For the past two months the trade has been entirely dependent upon the stock here as there have been no arrivals during that period. Under ordinary conditions this might be of small consequence but in the present instance it has a direct bearing upon the market which consumers may find it advantageous to take into account. At the present time, according to the most reliable information, there is no stock of Para tonka beans in first hands while the supply held by the dealers is reduced to a few thousand pounds. The season is drawing to a close and nothing definite has yet been learned regarding the extent of the new crop, and whether it will be large or small is purely a matter of conjecture. The conditions at present controling the market are favorable to speculative manipulations with the design of inflating values, and there are hints of a corner, not yet sufficiently pronounced to have a marked bearing upon prices.

The scarcity of supplies is said by those who do not credit the idea of a corner, to be the result of recent large purchases on account of manufacturers who were induced to stock up in advance of requirements by the comparatively low prices prevailing in the market until recently. However, all of the manufacturing consumers not having had the foresight to secure supplies at the recent quotations, the inquiries from those not so supplied have imparted a tone of great firmness to the market, precipitating an advance here and in London, which in some quarters is expected to continue to the beginning of arrivals of the new crop toward the end of this month or the early part of December. Present prices gauged by the quotations of former years are not high. In fact, for several seasons past, the range of values has been favorable to consumers because of the superabundance of stocks. The yield last year having been comparatively small the balance of supply and demand has become more evenly adjusted, admitting of some recovery in prices. If this is a correct assumption the question of the ability of holders to maintain the current rates after the beginning of next month will depend largely if not wholly upon the size of the coming crop.

The so-called Surinam tonka bean being in reality a selected grade of the Para variety naturally sympathizes in the improvement in the value of the latter. The supplies of Angostura beans being controlled by the Brazilian government, the quotations for that description in this market are maintained at a uniform rate, which is not influenced by the fluctuations in the prices of the other kind.

COTTON OIL AND HOG'S FAT.

The sharp competition between cotton oil and hog's fat is now the leading feature of the provision trade, and the fact that the wholesome vegetable oil is rapidly gaining supremacy, was exemplified last week by the compulsory withdrawal from the market of the largest and best known lard refining concern in the world, as related on another page. It has been an open secret for some time that the unfortunate owners were conducting an unprofitable business, although their brands were the recognized standards in home and foreign markets and sales previous to this year aggregated ten million dollars per annum from a manufacturing capacity of three hundred thousand tierces. The failure is partly attributed to the use of hogs' fat as a raw material, and in their efforts to stem the tide of public opinion in favor of cotton oil lard, the manufacturers found that they were drifting into financial ruin, as their capital stock was being exhausted in marketing an article which costs ten cents per pound, made with obsolete machinery, and competing against a popular substitute made by more modern methods at much less cost. They finally concluded to sell their plant and retire from that branch of business, instead of commencing at this late day to adopt improved processes of refining which have been in use for some time by active competitors.

No better testimony is required to illustrate the tendency of trade. It shows that the hog is being boycotted with a vengeance by consumers of lard, and that prices will be regulated hereafter on the cottonseed crop instead of being influenced by the crops of hogs and corn. If any stronger evidence is needed to indicate the extent of this revolution in public opinion, it is only necessary to state on excellent authority that the sale of cotton oil lard has increased this year from fifty to seventy-five per cent., and that the article has leaped into popularity under its own name instead of shielding the demerits of hog's lard by being offered as such. The reversal of opinion is such that the "pure" hog product will soon be a thing of the past, when the swine fat can only be used as a soap material.

The prosecutions in England, like the Washington investigation, have assisted to advertise cotton oil and the result is seen in larger exports. The agitation has been a direct benefit to American oil as there is no superior; lard refiners on the other side prefer it to the Egyptian seed product, as the quality of the foreign seed and methods of extracting the oil, are against it.

CHINESE RETALIATION.

We last week took occasion to point out the danger that menaced our trade with China, but we then did not expect that the Chinese would act so promptly and put retaliatory measures in operation before other measures were tried. It appers, however, that the merchants in China have been impelled by a sense of wounded pride, if by nothing stronger, to take action in the matter without awaiting the slower progress of diplomatic negotiations and communications by the government officials. A circular has been received by the Chinese merchants in New York from the firms in China with whom they are connected, authorizing the first move in a general boycot of American products, of which the following is a translation:

"You are hereby notified that you are to immediately discontinue the purchase of the following articles from American sources for the markets here, as they are being severely boy-

cotted by Kim Maid, by members of the trade unions, and other citizens. These are the articles now proscribed: Petroleum, white sheeting, all kinds of American calico, watches and American fire arms, ginseng root and flour."

It will be seen that articles in which the readers of the REPORTER are interested were singled out as among the first to be dispensed with. Their supplies of petroleum they can procure from other sources, while the other goods England is ready to supply and will only be too glad of the opportunity to supplant our products. It is also safe to assume that the agents of the English and other foreign manufacturers will do all in their power to increase the prejudice against American products. This may be regarded as the beginning of retaliatory measures that are to be expected, and unless the mischief is speedily remedied California will soon take a different view of the Chinese question as that state has extensive commercial relations with the Flowery Kingdom.

DIFFERENCES OF EXTRACT MANUFACTURERS.

There would appear to be anything but a brotherly feeling existing between certain of the manufacturers of dyewood extracts, and the key to the situation, is given in the following facts. Some time ago several of the largest manufacturers formed a combination, or perhaps more properly speaking, "entered into an agreement" with each other for the ostensible purpose of protecting their interests and products, and for the regulation of prices, but, we are told, in reality, to "freeze" out the smaller manufacturers, as the latter were not invited to join the combination. They also met and agreed on a price at which they would purchase raw materials, but whether they have not carried their latter venture rather too far, the future of the market for logwood and the amount of stock held in yards, can best demonstrate. But the main bone of contention lies in the action of a recent meeting which was held by the "combine.' At that session, in spite of the fact that stick wood was exceedingly scarce, with prospects of advanced rates being asked, owing to the difficulties at the port of production, the prices for extracts were reduced a quarter of a cent. Since that time another meeting has been held, and notwithstanding the changed condition of the market for raw wood, in the shape of a material advance in price, the combination made no alteration in the quotations for the manufactured product. This greatly incensed the manufacturers on the "outside," as they claimed that all concerned were cutting into high-priced wood, and the supply held by all makers, except in one or two instances, was only moderate. "It has only been done for a purpose," say they, "and that purpose is to reduce the market price o extracts to a figure which is utterly ridiculous, when the condition of the logwood market is taken into consideration, then refuse to sell at those figures on the plea of not having the goods, leaving those manufacturers who are not in the deal to supply the current demand at the ruling market rates, which of course will deplete their stocks of extracts and consequently stick wood, with the prospects of no more coming for some time, and in that manner force them to the wall and carry out the original design." Whether this is really the purpose of the manufacturers in question, we are unable to say, but their action at the recent meeting was certainly peculiar, and will bear explanation. It will thus be seen that the situation, at the moment, is a very interesting one, and the outcome is looked forward to with much interest by the trade generally.

THE TRADE IN STARCH.

On the crops of corn, wheat and potatoes, as a general rule, depend the values of starch made from those articles, and as the yield has been unusually large this year, it would be natural to expect easier prices for the manufactured product, if other circumstances which have an important bearing on the market were not considered. The potato crop, for instance, was very large in the United States, but the European yield is reported a failure and imports of starch from Norway, Sweden and Germany will not be such a feature in trade for some months to come as formerly. In fact, the domestic makers expect to occupy the field themselves this year and realize better figures than are now quoted. The total production of potato starch in this country is estimated at 10,000 tons per annum, but accurate statements concerning the output are difficult to obtain as numerous small factories are scattered over eastern states. They can only operate three or four months a year during the time when potatoes are in prime condition. The largest concerns are located in New York, Maine and New Hampshire and consumption of potato starch is increasing to such a satisfactory extent that leading manufacturers have been influenced to enlarge their plants, but there is danger in the future of a surplus stock burdening the market as a result of over production, unless a falling off in the crops here and abroad should come to the rescue. Potato starch was the first introduced and its history is said to date from Biblical times; it has not supplanted any other article and still holds its ground against substitutes, being used to a larger extent in the cotton and print industries and bleacheries. Sixty pounds of potato are required to make ten pounds of starch, while the residuum is sold as cattle food and fertilizer.

Wheat starch manufacture has made considerable progress and its by-products are destined to figure prominently in commerce. By the old process there was a large amount of waste material, but improved Hungarian methods of soaking the wheat in its original form and separating the glutin without fermentation, recovers a vegetable glue and glutin flour which are found to be valuable adjuncts to the business. The latter is about to be placed upon the market as a cure for diabetes and dyspepsia, while the glue is used as sizing and as a paste in bookbinding and other trades. In addition to these by-products the germ of the wheat is being made into oil and the bran sold as a cattle food. The wheat starch industry is second on the list and was established about forty years ago, but the production is limited to about 5,000 tons per annum and nine factories supply the home demand, the article being principally used for thickening colors, in finishing fine fabrics and for laundry purposes. It is said to be a very palatable article, but strange as it may appear, consumption is restricted to the channels named, although it has been used for some years abroad as an article of diet. The starch is neither exported nor imported, as there is sufficient made here and in Europe to meet all wants at the places of manufacture. The home market advanced in August and again in September to six and seven cents per pound on account of the speculation in wheat, and as the latter is expected to reach higher prices in the near future, the tendency of starch will be in the same direction.

Corn starch as one of the popular staples of commerce has made remarkable progress, and the consumption is constantly increasing, not only at home but in Europe and South America, where large quantities are taken. The average production in the United States is placed at 400 tons per day from white and yellow corn, the former being preferred. The quality of the large corn crop this year is said to be inferior on account of the kernels containing too much sap and the material for making starch has to be selected with care in consequence. All the factories have been sinking money in order to meet the sharp competition, and the small yield of corn last year was also against them, but manufacturers expect the present season to give better results as the corn market is in their favor, being quoted at thirty-eight cents per bushel in the West. Another item which will assist to support values is the fact that the twenty five factories commenced operations later than usual in the expectation of a lower range in prices for corn, and this has restricted production to immediate wants, so that the trade is not harassed by surplus stock. The present range of two and five-eighths to three-quarters cents per pound will no doubt be well maintained in consequence of the equalization of supply and demand. The germ of the corn, which is one per cent. of the whole kernel, is sold by starch makers to manufacturers of maize oil, but this branch of the industry has made very little progress, and the amount realized from the by-product is insignificant. The bran and glutin mixed, find an outlet as a cattle food.

There are some concerns that manufacture the three kinds of starch, and they find the growing demand of sufficient importance to justify an enlargement of the working capacity, and market the by-products themselves instead of allowing the profit to go into second hands. As in all other industries the owners of improved methods of manufacture will reap the benefit of competition, and this is being made apparent in the development of the starch trade. An effort was made recently to combine on prices and protion of corn starch but several parties were not inclined to make the venture. However, the suggestion has not been abandoned and there is now every indication that a combination will be effected.

THE MOVEMENT OF LINSEED.

The importation of linseed since January 1 shows a large increase over the previous year, being 292,261 bags against 79,692 bags, but present deliveries are very light in comparison, while the supply for four months now on the way, largely exceeds the two previous years at the same time, and amounts to 90,218 bags of Calcutta seed. There is no stock on spot. The last sale was the most important which has occurred in this market for some time and included 50,000 bags to arrive from Calcutta and England at $1 75½@1 80, the market closing firm at the latter figure. During the entire month of October only 15,006 bags changed hands, but since the opening of the year the aggregate deliveries in this city and Boston were 388,780 bags, against 97,843 last year and 110,457 bags the year previous. Most of the purchases of foreign seed was used before the domestic crop of seed was harvested and what little remains in the hands of crushers is being pressed to supply the regular demand for Calcutta seed oil.

Advices from abroad are to the effect that a strong market is the rule rather than the exception and that the amount offering from shipping houses has proved disproportionate to the demand (which came from America as well as from the Continent), the business effected consisting chiefly of second-hand parcels. Cable advices from India seem to indicate that supplies are likely to be short for the rest of the season, which, if taken with the paucity of seed from Russia and South America, fully justifies buyers in their recent activity. A correspondent in St. Petersburg, says that the new crop is small, having been damaged by caterpillars but no figures are given to show the character of the yield in comparison with previous years.

There has been considerable talk in the West about a combination being in control of the flaxseed market, but there is no definite information upon which to base such a belief, and supposition rested on the comparatively high range of values which was no doubt caused by the usual speculative element which is a noticeable feature in the flaxseed market every year. The receipts of domestic seed at this port have only reached 240,132 bushels from January 1 to November 1 against 1,185,900 bushels for the similar period last year, but the deficiency is to be accounted for in a large measure to the use of foreign seed between January and the time when the new crop was placed upon the market.

ONCE MORE THE WHITE LEAD SWINDLER.

The urbane, gentlemanly rascal, who makes a very profitable living through the medium of bogus drafts on white lead corroders, and a large amount of assurance, is working his way West, not with the intention of growing up with the country, however, but with the express determination of making the gullible merchants of that section contribute toward his support. On October 27th he celebrated his advent in the thriving town of Straitor Ill., by making a draft upon a Pittsburg lead corroding firm for the usual seventy-five dollars, and was accommodated with the cash by an obliging dealer. Of course he resorted to his time-worn tactics to obtain the money, but his assurance and good address, together with the fact that he adopted the name of M. E. Boulter, an alias he had not used before in that section, assured him success. At any rate he got the money and bolted from the town, and now his victim is reflecting upon the natural drawbacks to a too accommodating nature.

We presume we shall hear in a few days from other victims of this Lazier, alias Boulton, alias Burton, Waldron, Lamont, Randolph and a score or more of other aliases, and we shall probably continue to print periodical items regarding his operations for an indefinite number of years, or until his career is checked by that infallible detective, death, or he meets the merchant who reads the papers, and who is therefore prepared to hand him over to the justice he has so long evaded through the stupidity and ignorance of his victims. It surpasses comprehension how this fellow can elude arrest and punishment after the very thorough exposure of himself and his methods by the press, headed by the repeated warnings printed in the REPORTER.

No longer ago than September 26th we printed a letter from an Ottawa, Canada, correspondent giving minute particulars of the swindler's life and connections, and offering to cause his arrest whenever it should be desired by those interested. This letter was called forth by the article which appeared in our issue of September 12th, in which many details of the fellow's career were given, together with a correct picture of his scoundrelly countenance. Evidently neither the article nor the communication have yet been read by many to whom they were accessible, or he would long since have been behind the bars. It is to be hoped now that the merchants of the interior will keep a sharp lookout for Lazier, and avail themselves of the offer of our Ottawa correspondent. It might be to the credit of some of the corroders who have been used as stool-pigeons by the fellow, to take active steps to at once secure his arrest and conviction, by communicating with Mr

W. D. Morris, of Ottawa, Canada, who in the letter above alluded to tells how Lazier's career may be cut short, as follows: "I am quite certain that if I got information of any of his drafts within ten days or thirty, at least, I could locate him were the State or parties defrauded willing to pay actual expenses."

The corroder who, acting upon this offer, should attempt to run the swindler to earth might have to spend some money, but the resulting benefit to the trade at large would more than offset the expense involved, and at any rate he would have the satisfaction of knowing that a duty had been well performed. The new corroders' association is here offered an opportunity to secure the good will and confidence of the jobbing trade, which it now seems to lack in some essential particulars, by establishing a fund to secure the punishment of this and any other swindler who may choose the white lead trade as a stamping ground. In the meantime we await the report of the next dealer who presents Lazier, Boulter, Randolph, etc., with seventy-five dollars.

THE OIL FIELDS IN OCTOBER.

As the restriction to new drilling ventures ended on the first of October, there was immediately a large increase in drilling operations in every direction, in many instances much of the preliminary work had been previously completed so that the actual operation of erecting the derricks could be begun on the first day of the month, and in most cases the subsequent work has been hastened in every way possible that the well should reach the producing sand without delay. The limit to the restriction to drilling operations was made one month less than the general shut down, as new operations begun in October could not affect the production before the expiration of the full term, the curtailment of production only being for one year. The result of the first month's unrestricted operations is a total of one hundred and eighty-seven new rigs up and building and three hundred and thirty-three wells drilling. This is an increase of twenty-one in the number of new rigs over the September work, and of one hundred and seven in the number of drilling wells, making the total increase of new work one hundred and twenty-eight. The number of wells completed during the month was two hundred and twenty-nine, which is an increase of ninety-seven over the result of the September work. At the close of the month these wells were credited with a total production of three thousand one hundred and forty-two barrels per day, or an average of about fourteen and one-half barrels, but as there were fifty-four unproductive wells the average of the producing wells is brought up to about nineteen barrels per well. As compared with the September production the average per well is fully three barrels less. The average production of the wells completed during the first nine months of the present year is about forty barrels per well, showing the October wells to be far below the average. It is not probable, in view of the somewhat unsatisfactory result of the October operations, that the new work during the present month will prove as large. Some of the new work begun last month was in conformity with leasehold contracts, and was therefore obligatory, while in not a few instances operations were pushed to prevent drainage by neighboring operators, and those causes removed there will be less incentive to indiscriminately push drilling operations. One of the notable features of the October work is that a very large proportion was in old territory, and this fact makes the large proportion of unproductive wells significant. By the work in the field during October the situation has not been materially altered, as an increase of less than 1,000 barrels in the new production is not to be taken into account while the reduction in stocks goes on at the rate of of 15,000 barrels a day. Taking all things into consideration, the October field report should be regarded as decidedly bullish—so much was feared or expected and so little has been the result.

THE ENGLISH SALT SYNDICATE.

It would appear from recent developments that the British salt syndicate of which so much was expected by the almost bankrupt producers of England, is not to have such plain sailing in its attempt to exert a commanding control of the industry as it at first seemed reasonable to expect. Opposition has already appeared right in its own jurisdiction, as we are informed that a number of capitalists have started out with the expressed determination of foiling the efforts of the syndicate, with a fair prospect of success. It is intimated with some degree of reasonableness, that the real object of these alleged obstructions to the progress of the syndicate is, by making a great show of activity and strength, to worry that combination into paying them a good round price for their interests in salt mines. If this is the true interpretation of the alleged opposition, it is altogether probable that the syndicate will, if it cannot dispose of it by the means usually adopted is such emergencies, accede to the terms of the speculators, and thus sustain only a temporary check to its schemes for making the English salt properties profitable.

This, however, is by no means the only or greatest danger that threatens it. A far more formidable antagonist has appeared in the shape of a combination of German producers, who, it is asserted, have concocted a scheme to reap the benefits of the advance in the price of salt in the English markets by shipping an immense quantity of the commodity to those markets; disposing of it at prices below those fixed by the syndicate. The object of the Germans, it is said, is to break the influence and power of the English combination in its home markets, and so frustrate at the beginning its intention to ultimately control the salt trade of Europe. Granting that this is a correct view, the German producers would find plenty of encouragement and support, particularly from the alkali manufacturers of Great Britain, to whom the success of the English salt syndicate's schemes would be a very serious matter. The chemical trade in this country is watching with interest and some apprehension the progress of affairs in the salt industry on the other side and no doubt, to many, the prospect that the syndicate may have to abandon its project will be a matter of much satisfaction. However, the English combination is a remarkably strong one, with much in its favor, and it will be no easy matter to dislodge it from the strong position in which it has already entrenched itself.

THE KAINIT SYNDICATE.

The progress of the German kainit syndicate has given so much satisfaction during the past two years, that the parties interested resolved recently to extend the agreement for ten years more, and it is such an unusual circumstance that the action gave rise to considerable comment in trade circles. The announcement was received with surprise owing to the length of time named and the natural supposition was that a mistake had been made, but subsequent letters confirmed the first report and the kainit trade will continue on the same basis for a decade at least, with the same selling agents to market the product. A proposition was made at the Stassfurt meeting we understand to include the features of the muriate of potash syndicate, but the majority did not favor a change as the business was conducted in a satisfactory manner and the present management did not require a departure from established rules. The market for kainit is firm and indications point to a continuation of the feeling, unless an increased demand should come from the southern states, in which event higher values would rule.

A LAW FOR REVENUE ONLY.

The butter color which nearly all farmers and creameries use in giving the yellow tint to their product is annatto dissolved in cotton oil. The Commissioner of Internal Revenue has decided that such a mixture, though containing an extremely small amount of cotton oil, comes within the letter of the statute defining oleomargarine, and no doubt the law will be enforced against the legitimate butter makers as well. This will have the desired effect of creating an upheaval of remonstrances which will result, it is hoped, in the repeal of the obnoxious law. The only benefit derived is the revenue, and as the Government is already burdened with surplus cash, the law-makers ought to realize the importance of protecting the infant oleomargarine industry by wiping out of existence this glaring abuse of Federal power of taxation. It is well that the farmers have received a dose of their own medicine, as they were instrumental in securing the dangerous discriminating legislation which covers their case in precisely the same manner as manufacturers of artificial butter. They stand on the same footing and both should be taxed alike if the legal imposition is to be continued. The artificial coloring matter is harmless, and consumers demand it, but because another article is necessary in the manufacture, the Revenue Bureau steps in and insists on the payment of a royalty which is in violation of the fundamental principles of our Government.

SOME FIGURES ON BUSINESS.

Although the political campaign has its usual effect in restricting trade, there is not the same complaint of doing business at a loss, and the record of the past eight months shows one of the most prosperous years ever experienced in many branches of trade represented by the REPORTER. Here are some figures on New York receipts and exports for the period named, which indicates the progress of business, and as the prices realized have been on a higher plane than usual, the tradesmen are to be congratulated on the result.

NEW YORK RECEIPTS.

	From Jan. 1, 1888.	From Jan. 1, 1887.
Oils—		
Lubricating, bbls	43,621	34,723
Lard, bbls	6,131	4,848
Cottonseed, bbls	73,850	68,412
Oil cake, pkgs	332,052	384,979
Naval Stores—		
Crude turp., bbls	1,961	1,754
Pitch, bbls	2,969	1,476
Rosin, bbls	345,601	300,801
Spirits turp., bbls	83,468	94,475
Tar, bbls	26,483	19,554
Miscellaneous—		
Flaxseed, dom, bush	240,132	1,185,900
High wines, bbls	50,160	53,210
Alcohol, bbls	23,656	31,908
Soap stock, bbls	1,880	3,271
Oleo stock, tcs	70,500	73,354
Oleomargarine, bbls	19,977	12,085
Butterine, pkgs	12,618	34,710
Tallow, hhds	2,316	4,128
Tallow, tcs	10,021	15,036
Tallow, bbls	37,735	38,552
Tallow, casks	840	490
Stearine, hhds	841	893
Stearine, tcs	6,140	16,085
Stearine, bbls	1 311	1,979
Stearine, casks	25	2
Grease, tcs	13,871	14,306
Grease, bbls	19,428	17,870
Lard, tcs	263,162	319,543
Lard, bbls	.....	.....
Lard, kegs	152,107	165,980
Lard, cases	51,992	53,843

NEW YORK EXPORTS.

Oils—		
Lard oil, gls	357,855	440,976
Lub. oils, gls	16,887,172	14,835,927
Cotton oils, gls	1,239,536	931,969
Oil cake, lbs	128,689,561	151,122,858
Oil meal, lbs	5,580,306	6,900,528
Naval Stores—		
Spirits turp., bbls	18,157	25,763
Rosin, bbls	187,213	139,116
Pitch, bbls	4,023	3,694
Tar, bbls	4,468	4,981
Coal tar pitch, tons	.....	1,000
Miscellaneous—		
Lard, lbs	130,428,857	154,179,614
Stearine, lbs	1,856,649	3,924,681
Grease, lbs	18,788,371	37,450,661
Tallow, lbs	38,159,958	30,376,332
Alcohol, bbls	1,167	6,94

Cotton oil and tallow show largely increased shipments, and there is every indication that the foreign demand for these articles will continue to increase. Stearine and grease have not been in sufficient supply to meet home demands and that is the principal cause of the shortage this year in exports. Stearine has ruled rather high lately and the changed condition of affairs encouraged importations from France and England; but the "boom" has about spent itself if we are to judge from the comparatively low values now ruling. Lard oil has not been taken so liberally by foreign buyers, but the pressers realized extra high prices for what they did sell and were supported in their demands by the fluctuations in lard. The foreign movement of mineral lubricating oils is constantly on the increase, and it would be very unusual to record decreased shipments. Oil cake and oil meal are behind last year's record because the supply was not sufficient to meet all the orders; this is true of the cottonseed and linseed products, and at the present time the urgent demand is greater than the available stock even at enhanced figures. Naval stores are keeping up their end of the line, while the alcohol statistics indicate that it is about to retire as an export article.

TRADE ITEMS.

The political excitement reached fever heat last week and visibly affected trade in all its branches.

The Linseed Oil Trust has paid another dividend of one per cent., and is said to carry over a good surplus.

The President has issued a proclamation making Thursday, November 29, a day of national thanksgiving.

Mr. George R. Hillier, of Cedar street, has been nominated for assembly on the Republican ticket in the sixthdistrict of Jersey City.

Howard H. Harris & Co., wholesale dealers in baking powders and spices at Minneapolis, Minn., have made an assignment to E. H. Darrow.

Schedules in the assignment of Charles E. P. Meumann, dealer in drugs. No. 787 Eighth ave. to Robert F. Amend, show liabilities $11,564.82, nominal assets $15,058.20, actual assets $12,-908.20.

Among the presidential electors voted for on Tuesday were Mr. Andrew B. Rogers, Jr., of the firm of Rogers & Pyatt, and Mr. Wm. Brookfield, the Brooklyn bottle manufacturer. Both are on the Republican ticket.

The Norwegian bark Anna, which was driven ashore at Progresso during a norther and afterwards floated off, was surveyed and ordered to proceed to destination (Rotterdam) after reloading cargo of logwood.

The schooner Duroc, from Boston, of and for Portland, Me., with China clay and turpentine, arrived at Portsmouth Oct. 26 leaking badly with three feet of water in her hold. She was at Portsmouth wharf. Cargo in damaged condition.

The Toledo Sienna Mining Co., capital stock $15,000, has been organized at Toledo, O., with Charles Buetz as president; E. H. Cady, vice-president, and M. C. Fogarty, secretary and treasurer. The intention is to develop mines at Rockmart, Ga.

The latest advices from the Arctic whaling fleet state that the whaling vessels reported frozen in, in the Arctic Ocean, are together and fifteen miles south from Herald Island instead of twenty miles north as before reported

At Prescott, N. Y., Oct. 28, the distillery of Hon. John P. Wiser was burned about 3 A. M. The fire was confined to the inside of the distiller, the walls of which are still standing. The insurance upon the distillery is $5,000, which will probably cover the loss.

The Treasury Department has decided

that consignees should be allowed 10 days by the collectors of customs in which to file proof of damage to goods, and that the 10 days should not commence until after the unloading of the last car of the train.

The highest award (silver medal) in group 94 and 97 at the Cincinnati Centennial Exposition, was awarded to the Johann Hoff's malt extract and the imported Carlsbad mineral water exhibited by the Eisner & Mendelson Company, as agents for Johann Hoff, Berlin, and the Carlsbad spring of Carlsbad, Austria.

The window glass trade continues depressed, both as to demand and prices. Much better things were expected before this time, but improvement yet seems far off. All the factories here are working to their full capacity just the same, however, says the Pittsburg correspondent of the *Crockery and Glass Journal*.

The proposals received by the Government for Calcutta linseed oil, opened last week, are as follows: Campbell & Thayer, New York, 60c per gallon; J. A. Dean & Co, New York, 60c per gallon; Daniel Shanahan, Washington, D. C., 58c per gallon. The award will depend upon an examination of the samples.

Following close upon the recent rich find of plumbago at Adams, Mass., comes the announcement that a ledge of mica has been discovered in Hampshire County by C. A. Jones of North Adams. A Mr. Griffin, of North Carolina, has interested himself in the matter, and has leased a large tract of land in which the ledge is located.

The death of Thomas W. Bartram, a prominent member of the Produce and Maritime Exchanges and senior member of the firm of Bartram Bros., commission merchants, was announced on the Exchanges last week. He died on Thursday while sitting reading his paper in his rooms at the Ashland House.

Prices have been reduced on the perfect postal packages made by the Postal Package Co. of Baltimore. The name and address of all purchasers of 500 and over, will be printed on the packages free of cost. They are complete and ready for mailing, while special sizes are made to order at the reduced prices.

Mr. W. D. Stein who has been located in Chicago as an active member of the firm of Stein, Hirsh & Co., proprietors of the Chicago Chemical and Starch Works, is now a permanent resident of this city, having taken an office in the building with Messrs. Heller, Hirsh & Co., on Front street, where he will conduct the New York business of his firm.

Two entirely new plate glass factories are now being built in the vicinity of Pittsburg, and will be put in operation early next season. One is located at Kittanning, and the other near McKeesport. When completed and put to work there will then be five plate glass works in this neighborhood—more than the whole country contained a short while ago, says the *Crockery and Glass Journal*.

A new enterprise is to be located at Fostoria, on which active work is now progressing. The factory will manufacture glass cullets for the use of all glass houses, and it is claimed that it will be the only factory of the kind in the United States. It is to be in operation inside of ninety days, and as men of means are at the head of this enterprise it is expected to do a large business from the start.

A new flint glass factory is to be erected at Findlay, O., within a short time by a company composed of Cincinnati and local capitalists. The plans for the buildings have all been prepared, and the contract for their erection will be let as soon as some minor details are arranged. It is known that the company will receive a liberal cash bonus, a free site and free gas.

H. C. Ford, W. L. Thorne, J. Elkington and William Shugart, of the Board of Fish Commissioners, met last week in Philadelphia, and after a lengthy discussion decided to petition the Legislatures of Pennsylvania, New Jersey and Delaware to adopt such measures as will insure protection to the fish in the waters of the States named. This probably means another fight against menhaden fishing.

The glass works which have been in successful operation at Tallapoosa, Ga., for the past two months were burned to the ground last week. They will be rebuilt at once and greatly enlarged. The former structure was of wood; the new building will be of brick. Work has already begun and the plant will be in operation by January 1st. The original works had only two departments—lamp chimneys and table ware. In the new plant will be added a bottle and sheet glass department.

Floating rumor in Chicago has attached to the senior member of the apparently defunct firm of Corwith & Co., a disposition to speculate on the floor of the local board of trade. Some color has been given to the allegation by the institution of an action by a well-known board of trade firm to recover $200,000 alleged to be due on contract which is stated to have had its origin in the corner on wheat which is yet fresh in the memory of some of the victims of that famous deal.

In toilet soaps, purity, economy in use and delicacy of odor are the first things that the public consider. The latter has been educated to that point of late years that the best of everything is desired, and nothing but the best will satisfy it. Messrs. Fels & Co., of Philadelphia, manufacturers of toilet soaps, fully appreciate this fact, and have placed upon the market a very choice line of soaps for toilet use. Consumers are assured that soaps bearing their name are as represented in every particular.

A German professor says that natural gas is created by the presence of a mass of rock on a bed of peat, and that hydraulic pressure would create the same vapor if sunflowers were used to feed it.

"The fact might as well be acknowledged first as last," says the Montreal *Trade Bulletin*, "that Newfoundland codliver oil is being rapidly superseded by its much superior Norwegian competitor, even though the latter costs a great deal more. The consequence is that consignments of the Newfoundland product which find their way to this market are exceedingly difficult to sell, although offered at 20c to 25c per gallon cheaper than Norwegian oil can be bought for. A lot of Newfoundland codliver oil was recently sold at 60c, and although the quality was up to the usual standard of the newly manufactured oil, the buyer under one or two pretexts managed to repudiate the bargain, and the sale was cancelled."

Our Chicago correspondent says: "The well known lard oil firm of Fowler Bros., received a rude shock in Chicago last week by the arrest of R. I. Fowler, the local partner, on the charge of perjury. Reports are conflicting, but Mr. Fowler after a preliminary investigation extending over several days has been held to bail to await the action of the grand jury with regard to testimony previously given by him as to the ownership of the well-known plant presumably owned by the firm of which Mr. Fowler has been a recognized member. The circumstances attending the prosecution have given rise to a variety of speculative conjectures."

There was always a crowd around the interesting display at the Buffalo Exposition which was made by Messrs. H. William Dopp & Son extensive manufacturers of soap-makers' and butchers' machinery. at No. 462 Ellicott st., Buffalo. This well-known establishment makes a general line of soap-makers' machines, and their goods are sold in several foreign countries, as well as all over the American continent. All goods turned out are guaranteed to be strictly first-class. There was on exhibition the most improved lard-mixer, for drying, mixing and cooling lard, tallow and the like. It is unsurpassed, and takes the place of two other machines ordinarily used. Its merits are being appreciated by the largest lard refiners in the country. There too, were soap presses, one operated by steam, and also foot-presses.

The Committee on Science and Arts of the Franklin Institute, of the State of Pennsylvania, is empowered to award, or to recommend the award of, certain medals for meritorious discoveries and inventions, which tend to the progress of the arts and manufactures. Upon request, therefore, from interested parties, made to the Secretary of the Franklin Institute, full information will be sent respecting the manner of making application for the investigation of inventions and discoveries; furthermore, the committee will receive and give respectful consideration to reports upon discoveries and inventions, which may be sent to it with the view of receiving one or the other of the awards, and full directions as to the manner and form in which such communications should properly be made, will be sent on application.

Eminent geologists have said that in proportion to its area the State of New Jersey contains a larger variety of mineral deposits than any State or province in the world. Several minerals occur here in great abundance which are found nowhere else on the globe. Among the most characteristic and extensive deposits of commercial minerals are the clays of Middlesex county. The fact that there were vast fields of clay here has long been known, but it is only in comparatively recent days that practical use has been made of the knowledge. The first historical record of the clay having been used is the statement that the British soldiers quartered near Woodbridge before and during the Revolutionary War used the white kaolin to clean their buckskin breeches, calling it "Fuller's earth," but tradition says the red men used to make their peace pipes of it long before the settlers came.

Linde & Lawrence, manufacturers of refrigerating machines in this city are asking an extension of time of their creditors, and propose giving them collateral security for their claims. Nearly all the creditors have really granted the extension,and the remaining ones are expected to give their consent in a few days. Mr. Linde's fortune has been absorbed in the artificial ice business. He invested heavily in artificial ice companies in Southern cities, The principal concern in which he is interested is the Consumers' Ice Company of New Orleans. He is the chief owner of the concern, and his investment there is said to be $150,000. He also invested $20,000 in the Barent Ice Company of Washington, D. C.; $20,000 in the Danville Ice Company of Danville, Va., and $20,000 in the Raleigh (N. C.) Transparent Ice Company. These large investments have, it is said, not yet realized much cash for the firm,the profits generally being expended in improvements. This is said to be the reason of the firm being short of ready money.

PETROLEUM NOTES.

The Philadelphia Company has brought in four dusters in Chartiers Township, Pa., during this season.

The City Council of Tiffin, O., has repealed the ordinance providing for the issuing of $75,000 in bonds to lay a natural gas pipe line to the Wood county field.

Five members of the Consolidated Stock and Petroleum Exchange were last week suspended for non-payment of gratuity assessment and annual dues.

The Russian oil producers last week chartered the English steamship Strathearn to load refined case oil for the East Indies at one shilling and five pence per barrel.

The citizens of Greenoch, Pa., a suburb of McKeesport, are vigorously agitating the formation of a company to bore for natural gas, and with good prospects of success.

At Pittsburg, the iron mills and glass houses on the South Side complain of a shortage in the natural gas supply. The repairing of mains is assigned as the cause.

J. A. Cadwallader served an injunction upon Frampton, Shirley, McGee & Co.'s well, on the Tight Squeeze tract, Clarion field, last Wednesday and work was suspended until the 9th of November, when a preliminary hearing will be had.

The Nobel Brothers, the Baku petroleum refiners, spent $25,000 in entertaining the Czar. They presented to the Czarina a diamond bouquet holder valued at $10,000. Another petroleum firm at Baku spent $20,000 in honor of the Czar.

J. H. Simmons died at Buffalo, N. Y., on the 28th ult., at the age of about 40 years. Deceased was a native of Boston, but for several years was engaged in the oil business in Pennsylvania, and for the last year was a partner in a wholesale grocery house at Toledo, O.

Reports come from Lewiston, Me., to the effect that representatives of the Standard Oil Company had purchased the Crossman property of four acres above the Maine Central Station there. The design is to make Lewiston a distributing station.

The largest gas well in Northwestern Pennsylvania was strck last Thursday morning about two miles from Sheffield and 14 from Warren. It is owned by Horton, Crary & Co., Sheffield. Its roar can be heard five miles. The tools were blown out of the hole, and the gas cannot be saved until the pressure subsides.

During a strong gale September 14th, three cargo boats employed at Rangoon discharging kerosene oil from the bark Henrietta, from New York, were swamped with 3,000 to 4,000 cases of oil. A great number of these cases, were,however,recovered, and are to be sold by auction.

It may be superfluous to refute the story circulated in this city last week, and originating in Philadelphia, to the effect that the Standard Oil Company has become financially interested in the Russian oil fields and were making negotiations for the introduction of a pipe line system. The report was promptly denied, but nevertheless it caused considerable discussion in oil circles.

No definite action has yet been taken by the Board of Managers of the Consolidated Stock and Petroleum Exchange in regard to the petition circulated some time ago asking that the limit of membership be placed at 2,000, and that the certificates of membership above that number that have already been issued be bought in by the Exchange. There is strong opposition to the scheme.

William J. Osborn, a member of the Consolidated Exchange, marched in the great Republican parade on Saturday. While the procession was passing along Fifth avenue at Thirty-fourth street, Mr. Osborn, who had been considerably excited all the morning, suddenly staggered, reeled and dropped to the ground. When he was picked up it was found that he was dead. His death was caused by heart disease.

The Bridgewater Gas Company, at the time of its brightest prospects in the new Sheffield gas field, anticipating an almost unlimited pressure of the fuel, laid an extra eight-inch main from here to the field. Recent developments have shown that the line is not needed, and it is now being torn up, the pipe to be used by the company in laying the line to the new Bakerstown field in Butler county. With this extra line alone the company sunk about $50,000.

Los Angles, California, has a chamber of commerce, and one of its objects is the promotion of manufacture, and "to that end the cheap-fuel problem will receive attention." "Petroleum" says *Light, Heat and Power*, is looked to there as the most likely solution of the fuel question. A pipe-line to Whittier, twenty miles distant, is suggested as a means for transporting the fuel. A two inch pipe-line can be laid, it is said, for $600 to $700 per mile; a three-inch pipe-line for $1,200 to $1,200 per mile. Oil it is claimed, could be delivered in Los Angles by pipe at $1 per barrel, three barrels equaling one ton of coal.

The London *Pall Mall Gazette* states that the petroleum trade in the United Kingdom is more satifactory than it has been for years. It adds that "the Scotch mineral oil trade are anticipating a considerable demand for solid paraffin from a new quarter. Scotch solid paraffin is found to be highly advantageous for laundry purposes. One ounce added to every thirty gallons of the water and soap solution in which the clothes are boiled effects an enormous saving in labor and time, and renders rubbing practically unnecessary. No washing powder or soda is required, and there is an entire absence of smell.

Another process for successfully refining Ohio oil is announced and samples have been shown to prove the claims. The sample, two gallons in all, was taken from a lot that had been tanked for three months. It was a pure water-white, 150 fire test, free from odor and no discoverable traces of acid. The oil was burned in an ordinary lamp and carefully watched for eighteen hours. It gave a brilliant white light, without odor or charring of the wick, and the chimney showed no sign of having been smoked or clouded. In the distillation the naphthas were first cut off and then the distillate. The two products were subsequently united in a steam still and rerun, and the net yield was 24 per cent of the crude. The residuum makes a capital fuel oil. The process is more expensive than that used in refining Pennsylvania crude, owing to the necessary use of a greater quantity of acids and soda, but this is more than offs t by the fact that Lima crude is worth only 15 cents at the wells while Pennsylvania crude to-day commands a price above 80 cents.

A case that will prove of interest to all business houses and financial institutions that have dealings with commercial agencies was concluded in a Philadelphia court last week, Crew, Levick & Co., Philadelphia, sued the Bradstreet Company to recover damages for alleged untrue information furnished them. The plaintiffs had asked the agency to give them a report on the Union Refining and Manufacturing Company of New Jersey, and the agency reported that the company had a paid up capital of $600,000, and was in good credit. On the strength of this Crew, Levick & Co., gave the company credit to the amount of $1,500, which they have never been able to collect. It was alleged that the Union Refining Company was insolvent at the time of the report. The Judge granted a motion for a non-suit, one of his reasons being that Crew, Levick & Co., in signing the contract with the agency had waived the right to recover damages upon the grounds on which they now are striving to get a verdict. The judge said that if they could have proved wilful or malicious negligence, the circumstances would have been different.

There has of late been considerable dissatisfaction expressed among the members of the Produce Exchange on account of the delay by the Inter-State Commissioners in rendering a decision on the freight discriminations alleged against the principal railroads of the country. The facts were presented to the Commissioners some months ago by Wm. R. Foster, Jr., who was then the counsel for the Exchange. The petition asserted that the defendants were guilty of receiving a greater compensation for transporting merchandise from Chicago and other Western points to New York city than they charged and received for like service from the same points on through freight via New York city to European ports. The petition further stated that the rates were about 3c. per 100 pounds cheaper on through merchandise than those which were charged to New York city as the final destination. The whole matter, it is claimed, is neglected owing to the flight and disgrace of the counsel of the Exchange, Wm. R. Foster, Jr., and the absence of decisive action on the part of the committee in whose charge the matter is.

CORRESPONDENCE.

This column is always open for the expression of public opinion, but the REPORTER assumes no responsibility for the views expressed by any correspondent.

Borax Quotations.

SAN FRANCISCO, Oct. 25, 1888.

Editor OIL, PAINT AND DRUG REPORTER:

Under head of "Miscellaneous," we notice your paper of Oct. 17th, '88, says: "Borax will be advanced ¼c to-morrow (Wednesday) by the representatives of the Pacific coast syndicate making the price for California the same as for city refined, 8⅛@8⅝c."

The Pacific producers being unaware of any such advance of price, if not inconsistent, will you inform us, as subscribers to the REPORTER, who are the self-constituted or so-called representatives of the producers of borax who furnish the above information.

All the refined borax made at present on this coast is manufactured by this company, and for the past year our product has been sold at San Francisco, and the purchasers are marketing it solely upon their own account.

The use made of the term "Pacific coast syndicate" is wholly unauthorized, as there is, in fact, no such body or aggregation of capital, as is implied thereby.

SAN BERNARDINO BORAX MINING CO.,
H. KREBS, JR. TREAS.

[A slight confusion of terms in the report alluded to has apparently caused a misapprehension of the facts in our correspondents' minds. The price of borax, both concentrated and refined was advanced in this market on the date named, though possibly not at the instance of the "Pacific coast syndicate." Re-

garding the existence of such a combination of producers, which, however, is known by the distinctive title of the "Borax Board" by the trade here, there can be no doubt, as nothing has been received here so far to indicate that it has been dissolved. There is a deeply rooted conviction based upon solid fact that this "Borax Board" does regulate market prices, not only on the Pacific coast, but to some extent in New York. For further particulars we refer our correspondents to the editorial article on the borax situation in the issue of the REPORTER for October 31st, page 5.—ED.]

Preventing Rust.

NEW YORK, Oct. 31, 1888.

Editor OIL, PAINT AND DRUG REPORTER:

Can you or some of your correspondents favor me with a recipe for removing and keeping free from rust, nickel plated and bright steel bitts, stirrups, &c., and much oblige,

HARDWARE.

[Our correspondent may find the desired information in an article on page 10 of this issue entitled, "To Prevent the Corrosion of Metals,"—ED.]

Prince M'f'g Co. vs. Prince Metallic Paint Co.

Editor OIL, PAINT AND DRUG REPORTER:

NEW YORK, Nov. 5, 1888.

I regret that I am too late to have the erroneous impression produced by the letter of the Prince M'f'g Co. rectified in your issue of this week, owing to the REPORTER going to press one day earlier on account of Tuesday being election day. Next week I will send you full particulars for publication.

EDGAR BARCLAY.

CHICAGO LETTER.

Special correspondence of the REPORTER.

CHICAGO, NOV. 3, 1888.

The linseed oil market continues in essentially the same condition as last week, as regards both prices and demand. Quotations may yet be said to be 55 cents, and the inquiry appears to be only moderate. Our old acquaintances from the neighborhood of Niagara Falls have once more come up smiling, with offers of car lots at about a cent below the market. No one can be found who has heard of any sales being negotiated at these figures. Such sales, when effected, are not reported for publication, and as a matter of fact, if made at all are few and far between.

Both crushers and brokers report a moderately brisk inquiry from the East, but the figures ruling from New York are not particularly attractive to Western holders, who fail to see a net return of more than 53 cents, after deducting all expenses attending transportation and sale. As a consequence, there is little oil leaving Chicago for the seaboard. These sanguine souls, who, not long ago, thought that they had discovered on El Dorado in Philadelphia seem to have had a surfeit of sweets, in that quarter at least. From the same quarter, however, continue to emanate surmises and statements not always entirely consistent. As an instance of the wild prophecies indulged in, may be mentioned a rumor that the same fountain head of wisdom has predicted in one quarter the sale of oil in this market at 48 cents within sixty days, while maintaining in another that "oil must go up or seed must come down." For the sake of the reputation of human reason and common sense, it is to be hoped that the first half of the rumor has no foundation in fact. As regards the outlook for the future, it presents no new features.

Heavy exportations of corn have resulted in such an appreciation in ocean freights as to reduce the net returns from cake to local crushers to about $20@20 50 per ton. Rates to London are about 18@19s, and to Liverpool about half a crown less. Inquiry is not quite so active as it was a fortnight ago. Still, the previous output having been so readily taken, there are no indications of any accumulation of stocks at this point. Whether or not the extraordinary corn crop may not have injured the cake market in more ways than one, is a matter of conjecture.

FLAXSEED.

The inspector of flax reported 216,835 bushels of seed in public elevators at the beginning of the week, as against 153,107 bushels one week previous. The surprising difference between this year and last is shown by the fact that on the corresponding date of last year there were 401,811 bushels in the same class of repositories.

The total number of cars inspected in during the week has been 389, of which 345 or 88 per cent have been No. 1, and 41 rejected.

The secretary of the Board of Trade officially reports receipts and shipments as follows:

	Receipts.		Shipments.	
	1888.	1887.	1888.	1887.
Mon.	27,755	40,267	34,288	6,796
Tues.	52,934	37,845	8,059	11,272
Wed	41,911	51,829	63,175	135,204
Thurs.	41,303	44,886	27,794	95,997
Fri.	32,505	33,202	17,767	38,611
Satur.	28,402	54,727	24,210	110,711
Total	224,870	262,756	175,293	398,591
Last week	263,331	281,797	235,576	255,239

The week's sales—of both cash, seed and future deliveries—have been very moderate, footing up (so far as reported) as follows: Of No. 1, cash, 178 cars and 94 bags; of rejected, 18 cars; of no grade, 2 cars and 163 bags; of October, 3 cars; of November, 8,000 bushels; of year, 52,500 bushels (five cars having been exchanged for cash, seed, at an equal valuation).

Outside crushers bought more freely than did those of local habitation and fame, who were apparently out of the market. Reviewing the market, in a few words it may be said that the latter half of the week showed a reaction, resulting in a decline. The fact that representatives of Eastern houses have been timorous buyers may, perhaps, have occasioned the rumor that the principals are importing or buying Calcutta seed.

Saturday's sales were at $1 46½@$1 47, the market closing at the outside, or about 1c higher. Receipts fell off 46 cars, notwithstanding which fact the offerings were small.

The course of the speculative market may be briefly outlined. On Monday it was nominal, there being practically neither offerings nor demand. For year delivery $1 46 was bid, and $1 47½c asked. Tuesday witnessed an improvement and moderate trading was reported. November seed brought $1 48½ and year $1 48½@1 49, closing at the outside. Wednesday's market was a trifle weaker. A few cars of October were delivered in settlement at $1 49@1 49½. November sold at $1 47 while year delivery brought $1 48 early, but later was offered at $1 47, with $1 48 bid. May was offered at $1 52, but no buyers appeared. On Thursday speculative deliveries were entirely neglected, the only transaction being 5 cars of year for cash, at $1 47 for both. The transactions of Friday were confined to the sale of 20,000 bushels and 5 cars of year at $1 45, a decline of 2c; nothing else was mentioned. To-day November sold early at $1 46. At the close $1 47 was asked but without acceptance. Ye r delivery occupied about the same position.

There is an apparent increase in stocks but this may be explained by the fact that more or less seed has been placed in store for delivery on contract. This week's inspections only have aggregated 113,124 bushels—somewhat less than a week ago, indicating a lighter shipping movement.

OILS.

The week has witnessed a further decline in lard oil. "Extra" is purchasable here to-day at 72c—a drop of 3c since last Saturday. Still, brokers report no improvement in either sales or inquiry. Inferior grades are reasonably active at about last week's prices. In fact, apart from the decline in "extra," the situation presents no new features. In regard to this falling off, however, one bears various surmises—in fact, too many to repeat. One criticism, however, may be worth noticing. Formerly it was supposed that the price of a gallon of "extra" ought to represent the market value of seven pounds of cash lard; on this basis, with the latter at 8 12½@8 25c, the ruling quotations for the former would seem to be disproportionately high, and there are those who think that they cannot be maintained, and that the decline of the last fortnight marks the beginning of a reaction.

As regards oleo, melters' interest still centers in the Holland market. Cipher cablegrams received here indicate heavy sales at 46 flor, Even the recipients of these advices, however, discredit th m. The most authentic information received here from abroad indicates an extremely quiet opening of the Rotterdam market, and a continuance of the same state of affairs for some days. Reported offerings at lower prices tended rather to demoralize current quotations. A sale of 1,000 tierces of Lineoln oleo at 46 flor, has been reported, but the recipients of the cablegram question its correctness inasmuch as it seems incredible that Dutch importers should concede 11 flor, at a time. No one here presumes to prognosticate the course of the foreign market. Chicago melters are credited this week with an exportation of 2,100 tierces, as against reported sales abroad of 2,000 during the last week. The local market continues to present no features of interest; inquiry is at a minimum, and—so far as melters are concerned—Holland affects a more attractive outlet than does Chicago.

PAINTS.

There is but little of interest to note in the local point market. Public interest seems to have focused on the approaching election, and the demand is flat.

Mr. George H. Vrooman (of Bradley & Vrooman), Secretary of the National Paint, Oil and Varnish Association, yesterday received a communication, in his official capacity, from the Secretary of the St. Louis Paint, Oil and Drug Club, advising him as to the action taken by that organization with reference to its representation in the National Association.

The letter states that at the first regular meeting of the club this season (held on last Tuesday evening, Oct. 30) in the absence of Mr. O. F. Whitelaw, Mr. Robert Whitelaw read a communication outlining the objects of the association. The question being submitted, the club decided to become a member as a body, and elected the following gentlemen as its representatives, to act in conjunction with Mr. O. F. Whitelaw, First Vice-President of the National organization: Mr. Geo. O. Carpenter, Jr., of the St. Louis Lead and Oil Co., and J. C. Richardson, of the Richardson Drug Co. Mr. Vrooman has been informed that the Pittsburg Club will take action at its November meeting. The local trade generally take a deep interest in the success of the National Association, and it is hoped that the interest displayed throughout the West may stimulate the formation of Paint, Oil and Varnish clubs at such commercial centres as Cleveland and Milwauke , which have not yet caught the contagion.

DRUGS.

The October balance sheet of the city jobbers, when compared with that of the same month of 1887 is not devoid of interesting features. While it affords evidence of an increase in business exceeding the natural percentage, it affords data for comment upon the wisdom of retailers. To illustrate, the demand for camphor was largest when the crude material had reached its highest point; when there was a temporary advance in opium, retail druggists bought freely upon an advancing market. Quinine fell off, and buyers were timorous, Within the last week advices from the East, indicating a recovery in tone, have been received. Naturally, small buyers timorously await a reaction. To put the matter plainly, the retailer is given to speculation: but, like the farmer, he not infrequently finds himself landed on the wrong side.

An epitome of the situation would show comparatively few changes. Opium is weaker and in only limited demand, local jobbers billing the drug at a decline of 10 cents from the price of last Saturday. Quinine is firmly held at last week's outside prices, and a continued firmness in New York will inevitably result in an advance in Chicago next week. Glycerine is active and exceedingly firm at outside quotations. Borax remains—on its face—a conundrum. It is difficult to find anyone who will hazard a guess as to its future; it is always difficult to prophecy before the event. Nevertheless, there seems to be a prevailing impression that current quotations are not extravagantly high when considered in relation to the visible supply, and that stocks of borax, just now, are valuable property. CALUMET.

MISCELLANEOUS.

Addition to the Cotton Oil Trust.

The old and world-renowned lard refining house of W. J. Wilcox & Co. has at last succumbed to the inevitable, and passed into the hands of the American Cotton Oil Company, after a long and hard fight to maintain the supremacy of refined hog's lard over cotton oil. But the introduction of the latter in place of the former as a cheaper and more healthful substitute in the markets of the world, made the competition so unequal as to leave but the course which has been adopted. About two weeks ago, the situation of affairs compelled a change in the management, as we understand that some of the stockholders were not satisfied, and the result was the election of Mr. R. B. Brown as president, Mr. C. Townsend as vice-president, and Mr. Richard Arnold as treasurer. These gentlemen concluded after a thorough investigation of the business that it would be useless to continue the struggle and efforts were made to find a purchaser. After negotiating with several parties, the extensive plant, brands, good will and all other privileges were sold to the American Oil Company—the New York branch of the American Cotton Oil Trust. The sale was confirmed last Thursday by the purchase money being paid in cash. This transaction is the outcome of an attempt made last spring to lease the property and it has inured greatly to the advantage of the fortunate buyers. The name of the company has been changed to the W. J. Wilcox Lard and Refining Company, and when the papers of incorporation are received from Albany, an election for officers will be held. It is not likely that any one connected with the old concern will be retained in service. As the stock of lard and oil on hand was not included in the sale, it will be disposed of as quickly as possible, and the liquidation of the old company is expected to be finished in a few days, as all the liabilities have been settled, and it retires without leaving a cent of indebtedness, which is in keeping with the previous good record of the concern. It is not known, however, whether the stockholders will realize par value on their capital stock of $150,000, or be compelled to accept much less, but if street rumor is to be credited they will not receive more than 50 per cent.

The factory is built on the bank of the North River at the foot of Fifty-ninth street and is the finest lard plant in the whole Trust system, if not in the world. Its very desirable location enables the manufacture and marketing of goods on a cheap basis, as vessels drawing twenty feet of water can load at its docks on North River, and the intention is to make all foreign shipments from that point. Hereafter freight can be saved on all raw materials sent West to enter the lard product, as the bulk of the former had to be purchased in New York, and the cost of transportation was a big item not only in shipping the constituents of lard to the factories, but in receiving the finished product for this and foreign markets. The capacity of the factory is 300,000 tierces per annum and if this immense amount is not sufficient to meet the demand, the plant will be enlarged.

The "W. J. Wilcox Company," standards of lard have been known for years all over the world, and their reputations so well established that advances on consignments were not difficult at any time close up to value, while in foreign countries, and especially on the Continent, they were handled with as much confidence as so much cash. It is the intention to maintain the character of the brands and conduct the business vigorously. The result on the market for lard was thus stated by a broker: "We have no lard market here today, as the Wilcox Company, who have made the New York market half the time the past few years, or did at least half the business, are out of it, and not a trade in futures was made on the floor to-day. The same has been true of the spot market for the last fifteen years, as they were the largest buyers here as well as the exporters of over half the lard shipped from the United States for many years during the height of the prosperity of the Company, when their annual product often aggregated $10,500,000."

The late W. J. Wilcox is said to have discovered the process of refining lard, and established the business in 1862. The list of stockholders was limited to seven. The capital stock had been originally $275,000, but the amount was reduced to $150,000.

A Swindler in an Old Role.

A fellow by the name of Henry Hennessy, has been giving the friends of Major J. B. Horner considerable annoyance during the week, and although just out of prison for practicing a similar game, he is not deterred by police surveillance from living by his wits again. Business men of this city, especially in the stationery line, are on the watch for the young scamp who is going about giving bogus orders for goods and reaping all the harvest he can for his own profit. He is variously described by those who have seen him, but he moves with such celerity that the descriptions given of him are nearly as varied as the number of those whom he has swindled. In his rapid movements he has left a visible streak of red hair. At least the majority of those whom he has defrauded of money say that he is a pronounced strawberry blonde. Others declare that he has light hair. Some say that he has a smooth face, others remember that he had a small moustache. Some say that he appears to be 25 years old, others place him at 35 years. All concur that he is about five feet two inches tall.

The general plan of the swindler has been to order stationers' supplies, the goods to be sent to J. B. Horner, 44 Maiden lane. Mr. Horner formerly did business as an importer of oils at that place, but now is located on Cedar street. This young man has made the essential part of his plan to secure the delivery of a part of the goods to himself. He was always urbane, plausible, and in haste, saying that the firm for which he ordered the good was in a hurry for a part of them. He would ask to have a portion of the order delivered to himself, and if this were done that would be the last seen of the goods.

About a dozen store-keepers have been defrauded of goods in this manner, and strange as it may apper the name of Mr. Horner is always used by the rogue. Mr. Horner says he dont know h m and cannot understand why his name should be used tn preference to others. Hennessy was prosecuted by Mr. Horner some time ago and he thus put a stop to the swindle while the fellow served his term in prison, and if caught again the full penalty of the law will be meted out to him. The persons victimized are acquainted with Homer, but are identified with other trades and seldom stop to think that he is no longer on Maiden Lane. The firm occupying his former store building has been in receipt of numerous packages of goods, but in every instance they were returned.

Adulteration of Condiments.

The microscopist of the Department of Agriculture, Prof. Thomas Taylor, has begun an examination of the condiments of commerce for the purpose of ascertaining which of them are adulterated, the methods and extent of the adulteration, and of discovering methods by which the consumer may detect impure articles.

The first article treated was pepper, and the method of the investigation is here briefly described. A section of a pepper corn is placed under a microscope and magnified one hundred and fifty diameters. Its appearance is carefully noted and photographed, and a drawing in colors is made, showing exactly how it looks. The pure powder of pepper corns is then treated in the same way, and from a comparison of the image of this with that of the section, the changes caused by grinding may be noted. The next step was to examine specimens of the pepper of commerce to ascertain if it presented the same appearance as the pure pepper already photographed and drawn. In a majority of cases it did not, the differences being so striking as to mark it as an entirely different article.

Professor Taylor has ascertained that the substance used in adulterating pepper is the seed or stone of the olive. These are obtained in large quantities from the olive oil factories

and ground up with pepper corns, the extent of the adulteration being in some cases as great as fifty per cent.

No method of popularly detecting adulteration of pepper has yet been found. In bulk the pure pepper is darker in color than that to which olive seeds have been added; but the difference is so slight that no person, unless possessed of a sample to compare with, would be able to discover any difference.—*Science.*

Adulteration as Defined in Law.

According to the Massachusetts Adulteration Act, an article of food is deemed to be "adulterated" within the meaning of the act:

"1. If any substance or substances have been mixed with it so as to reduce or lower or injuriously affect its quality or strength.

"2. If any inferior or cheaper substance or substances have been substituted wholly or in part for it.

"3. If any valuable constituent has been wholly or in part abstracted from it.

"4. If it is an imitation of, or is sold under the name of, another article.

"5. If it consists wholly or in part of a diseased, decomposed, putrid, or rotten animal or vegetable substance, whether manufactured or not or, in the case of milk, if it is the product of a diseased animal.

"6. If it is colored, coated, polished, or powdered, whereby damage is concealed, or if it is made to appear better or of greater value than it really is.

"7. If it contains any added poisonous ingredient, or any ingredient which may render it injurious to the health of a person consuming it."

A New Oil Light.

A new oil light was shown in public near London recently. It is stated that the principal feature of this light is the mode of evaporising the oil and preventing its escape in the form of spray, or, in short, the method of obtaining complete combustion. Creosote oil is ordinarily used, and after a small quantity of spirit has been poured on the surface of the oil contained in the well of the lamp, a light is applied, and the radiating covers put on. Compressed air is then turned on, which, passing by means of a small jet through the center of the flame and over the surface of the oil in the well, forms a high temperature, and also produces an induced current, which raises the gas of the heated oil, and at the same time draws in the necessary supply of air to complete perfect combustion and produce a powerful light. The well of the lamp is connected with a tank or reservoir, insuring a constant supply of oil. The flame forced up from the lamp emits no smoke, and the light, though naked, does not dazzle the eyes. The light is chiefly intended for industrial work on a large scale, such as in connection with railways, docks and buildings where the illumination of large spaces in the open air or under cover is required. Either common creosote oil, crude petroleum, or any other heavy hydro carbons may be used.

To Prevent the Corrosion of Metals.

A writer in the *Paper Trade Journal* in discussing the foregoing subject, says:

The readiness with which iron is affected by the action of ordinary chemical agents, or even by atmospheric influences, has long made desirable some cheap and ready method of protecting the metal against corrosion. This end is somewhat imperfectly attained by the well-known processes of tinning, "galvanizing" and nickel plating; but while the protection thus afforded is generally sufficient to retard rusting it often fails completely to resist the action of common chemicals. A treatment which should really prevent corrosion would be of such great value to manufacturers of sulphite fibre, as well as to paper makers generally, that a short account of what is being done in this direction will not be out of place.

It has been known for a long time that iron which had been dipped into concentrated nitric acid was henceforth proof against the action of a weaker nitric acid. This is due to the fact that the strong acid forms upon the surface of the metal a coating of insoluble oxide of iron, which acts as a protection thereafter. From this fact developed the Bower-Barff process of protecting iron, from which a few years ago great things were expected. In this process the iron is subjected to the action of very highly superheated steam in a closed chamber, the result being that a hard, closely adherent scale of black oxide of iron is formed which renders the metal almost perfectly proof against the corroding effect of water and air. The scale does not appear, however, to be absolutely continuous, so that iron vessels so treated cannot resist the action of acids for any length of time.

Another method which has promised much, and which is by far the prettiest ever proposed, is known as the Dode process. In this the iron is painted over with a solution of chloride of platinum in oil of lavender, carefully dried and heated moderately to decompose the oil, which, as it is driven off, leaves a coating of metallic platinum.

"Objects so treated present a beautiful appearance, and the film of platinum is so excessively thin that the platinizing is said to cost no more than a coat of paint. We have made a long course of experiments looking toward the utilization of this process for the protection of sulphite digesters, but have been obliged to set it aside, as the liquor never failed to find some minute points which the coating did not cover. Like the Bower-Barff process, however, this of Dode renders iron rust proof for a considerable length of time.

Excellent results have been claimed for a recent American process, in which the iron is dipped, after being cleaned, into a bath of lead which has been subjected to a purifying process. This leaves a thin coating of lead upon the surface of the iron, which should be superior to the film of zinc obtained in ordinary "galvanizing," especially where the atmosphere is likely to be charged with acid fumes. The great trouble with all methods so far proposed for coating iron, except by heaviiy electroplating, lier in the fact that it is extremely difficult to get a coating which shall be continuous and without minute holes through which corrosion can begin. As soon as the iron is acted upon through any of these holes, portions of the coating separate and expose fresh surfaces, so that the whole coating is before long destroyed, its destruction being hastened by the galvanic action which takes place at the junction of the two metals in presence of the chemical agent.

A New Alkaloid from the Calabar Bean.

Messrs. C, F. Boehringer & Sohne, of Manheim and New York, have issued a circular on their discovery of "Eseridine," in which they give the following particulars:

"We discovered last year in the Calabar bean a new alkaloid, crystallizing in fine tetrahedrons, which we introduced under the name of Eseridine. This alkaloid closely resembles physostigmine and is easily transformed into the latter when heated in diluted acids; it is therefore imperative to avoid heat when dissolving it in such acids.

"The physiological effects of Eseridine are of the greatest importance. On the whole, Eseridine in medical doses is sure to produce diarrhœa with only slight or no disturbing influence on the central organs. Toxical doses of Eseridine would be six times larger than those of physostigmine. The nervous symptoms attendant upon its application are very slight compared to those with which the use of physostigmine is usually accompanied, although the same effect on the bowels is produced. According to the experiments made so far, Eseridine considerably increases the secretion of gastric juice in the digestive channels. These properties secure for the Eseridine a decided advantage over physostigmine.

"Therapeutic Use.—As a purgative like physostigmine; as a stimulant for the spine without the cumulative effects of strychnia.

"Contra-indication.—Diseases which are connected with excitement of the brain or of the spine. (See Mr. W. Eber's publication—*Berliner thierarztliche Wochenschrift* 1888. No. 40.)

"We are offering the Eseridine in large crystals and in form of a powder, the latter recommending itself on account of its easy solubility. The melting point of both lies at 132° C. We may add that we are the only manufacturers of Eseridine and that we have always a certain quantity of same ready for immediate dospatch."

Work in the Petroleum Fields During October.

From the comprehensive review of operations in the petroleum fields during the month of October compiled by the *Derrick* we copy the following:

The Middle Field is active only in spots, the greatest energy is being experienced in the big woods of Elk county where 26 of the 55 drilling wells and 18 of the 28 rigs accredited to this division may be found. The new wells are said to be averaging lower than the wells finished a year ago; this is most noticeable along drilled lines. The torpedo companies are shooting a trifle heavier than they did last year, which, in its way, is a very good straw and indicates drainage. The Elk county producer is drilling for production. The dominant idea of the Elk driller is to make up for lost time. There is a limit to the pook and at the present rate it will be reached by January 1, when there will be nothing left but ragged edges to drill. Clarendon and Tiona territory is meeting with favor, more particularly the latter, which stands at the head of the list of premium oils. Kinzua and Grand Valley are being experimented with to a limited extent, for the very good reason that the territory to be experimented with is limited, and the drilling for the most part is confined to "inside" locations. The wells finished in October indicate drainage. There is neither so much nor as good territory about Grand Valley as appearances a month ago seemed to indicate.

The same remarks apply in equal force to Venango and Clarion, except, of course, the Clarion pool which has a way of bumping itself, peculiarly its own, and then letting go again when least expected, that no pool yet discovered can approach. In Venango county there are 60 wells drilling and 57 rigs out of 80 wells, and 77 rigs that are accredited to the district. The wells and rigs are distributed over a vast area, extending from Pleasantville to Emlenton. Allowing 10 per cent for failures the output of the lot, providing all are finished within the current month, will not exceed 200 barrels a day. In other words, 50 Venango wells are required to do the work of two Taylorstown wells, or one hour's production of a good Clarion well, when they strike it just right. The new wells in the old territory, south of Pleasantville, are now always a "thing of joy." Some of them are deuced small, and will cause some little hustling to get cost out of them. Clarion caused something of a flurry by the completion of two wells, each of which started off at 100 bbls. an hour or better. The same wells within a week ceased to flow, and at the close of the month they were reduced to a small fraction of their origiral capacity. These wells were clearly inside; and if they show anything, not previously observed, they demonstrate that some spots are richer in oil than some other spots. The big wells are 300 feet West of the gushers of the past. Enough drilling has been done in the vicinity of the pocket to show where the richness does not extend, and the only course left for a possible extension is due West. The extent of the gusher belt, as indicated by finished wells, is about two locations in width; how much further westward it may extend if any is purely conjectural. There are wells now under way that will do much toward a solution of the vexed problem. The experimental drill has not been idle during the month, just past, and much territory looked on as gilt edge condemned. At this writing the wells filling the largest space in the public eye are those on the west side. The Kugler well, on the McComb lot, is a full-fledged mystery. This lot is just west of the Buhl farm, and as to the gusher wells it is about 100 rods west and 800 feet south of a west line from them. Eight hundred feet is a long distance in that sort of territory. There are a dozen wells drilling in Clarion and about the same number of rigs up and building. The output of the pool at this writing is not far from 1,200 barrels a day. The average Clarion gusher may be very erratic and no account as a stayer, but among them they've succeeded in attracting public attention to its abandoned fields. Large blocks of land have been leased and the probabilities are that considerable experimental work will be done in the county between now and spring.

Butler and Armstrong with 84 drilling wells and 31 rigs is practically featureless. The new work is spread out over the face of the county, from Parker to the Allegheny county line. Glade is the most active point in the district but Millerstown and Saxonburg are never without enough business to make it interesting for the casual visitor. Mr. Phillips is plying the drill with his usual energy at various points at the same time, but his most conspicuous success has been achieved during the month just ended, at Glade. He found at least three excellent wells in his favorite territory, one of them in the hundred foot and the others in the regular third sand. Saxonburg has made no progress to speak of in the past month, two wells came in on the southeast which at the time appeared to mark an extension of the belt, but they turned out to be flashy and soon subsided, and are now rated as very small wells. When the present crop of wells is harvested and the driller undertakes to sum up the result, the fact that Butler county is pretty well drained, will dawn upon him. And the probabilities are that the present drilling list will not be duplicated any month this year or next, unless something better is found than is now known to exist.

The southwest district is one in which the greatest interest is centered, more on account of what may be learned from it than that which is known. Brush Creek has increased its new work without adding to its new production, except in the way of touching up old wells. The Chambers Oil Company increased an old well by deepening it, which may have the effect of causing all the hundred-foot wells in the pool to go down for another pay streak. Bakerstown has added two gems to its diadem of dusters. The Gold pool, on the the other hand, has found both producers and dusters; more of the former, however, but the wells were not so large as they anticipated.

The persistent array of dusters on south and southwest sides have caused a change of tactics and developments are now reaching off in a southeasterly curve. The Allegheny Syndicate have several wells and rigs under way on the popular line. At Shannopin there is no increase in new work and the only finished well represents a dry hole. At Murdochsville one small well is the result of the month's work, and that had to be shot hard to be a well at all. There is considerable small well territory hereabouts which will make good picking for the individual producer, without disturbing the market's equilibrium. The parties doing the work are not discouraged at small wells and dry holes. Mr. Crocker, the father of the fields of the Southwest and several more in other parts, is about to drill another well near Burgettstown. Mr. Crocker was the leader of the small band of Argonauts who floated down from Bradford several years ago to locate and gather the golden fleece from the rock-ribbed hills. He located the hills, but others appear to have gathered most of the fleece, and the old man is, so to speak, out in the cold. The kindliest wishes of a sympathetic public will attend the old Argonaut in his present venture.

The sensation of the month was the discovery of oil in a well drilled for gas by the Bridgewater Gas Company, in Hancock county, West Virginia. Considerable drilling had been done in the vicinity previous to this venture, but no oil was found. The well started up at 105 to 110 bbls. a day which it has maintained without much variation. The drilling is quite shallow; the oil was found in the Smith's Ferry horizon. There are three wells drilling in the vicinity and several preparing to drill. The prospects are there will be many disappointments before any one meets with conspicuous success in that horizon. Before the week is out George Givens will bring in a well on the Crawford farm about 100 rods Southwest from the Bridgewater producer, which will shed some needed light of some description on the pool. In Washington county, the drill has made no new conquests since the last report was issed. Two dry wells were completed in the Fergus annex and two small producers; that division of the field is without a drilling well. There is a little drilling west of Washington, but no wells have been finished recently to lend added interest to the section. Taylorstown has done nothing during the month just ended, except add to its new work. Of 64 wells and rigs in Washington county 51 are at Taylorstown and 20 to 30 of them, with ordinary luck, ought to finish this month. The verdict of the November drill will make mighty interestin' readin', and there is every reason to believe that there will be some weeping and wailing over the misfit wells that may be found on the frontier. The situation at Nineveh is practically unchanged. The drilling wells are deeper than they were a month ago; the Johnston well is still fishing for lost tools, and all production in the meantime is suspended. The prospects for bringing in a new well this month are not particularly bright.

At Mt. Morris the situation has undergone some change, which may be considered as for the better and for the worse with equal propriety. The Mascot Oil Company found a 150-barrel well on the J. R. Donley farm, which may count for the field, and Joe Craig finished a salt water well on the Snyder lot which would be considered as unfavorable but for the fact that Mr. Hukill finished a salt water well on the same line some weeks previous, which removed the wire edge, as it were, from Mr. Craig's mishap. The Olsen well on the northeast end of the field, is in the sand at this writing, with considerable more gas than is needed in its business. Much depends on the success or failure of this well. There are 11 finished wells in the pool, producing not far from 600 barrels a day. The territory is rather uncertain. The east side is gaseous, and the west is full of salt water. The latitudinal space between big gas and deep water, is about five ordinary locations, or 2,000 feet. The wells are bunched in on town lots rather thick for comfor . The rock is essentially a natural producer. All the wells exploded have been spoiled in the operation. There is considerable demand for territory, but the prices paid are not fancy. Strong parties are taking hold, and the prospects for a thorough development of the resources of the district never were better.

Crude Petroleum as Fuel.

The use of crude petroleum for fuel has received an additional impetus in the laying of the pipe line to Chicago, and large quantities of the product are now being delivered to manufacturers in and around that city, who already use it in their establishments: and others, who still have coal for fuel, are being urgently solicited to adapt their plants in order likewise to utilize it. Fire underwriters having just succeeded in reducing the electric light hazard to a satisfactory minimum, and still being troubled with the natural gas hazard, are now confronted with the serious problem of how to so regulate the use of crude petroleum for fuel that the risk of conflagration may be reduced to a reasonable percentage. The question is one which cannot be "laid upon the table." It should be carefully and considerately investigated, and rules for regulating the use of fuel in this inflammable form must be intelligently fomulated and rigidly enforced. It is vain to hope that either the dealers in or users of this commodity will take any trouble, or go to any expense, to reduce the hazard of its use for fuel unless they are confronted with the refusal of reputable and reliable companies to insure property thus jeopardized; and while those who claim that the prevention of loss in general is not an underwriter's duty still form a large proportion of the underwriting fraternity, nevertheless, for their own protection, it seems to us, will consult their best interests by reconsidering their position and taking prompt action in the matter. They who assume to dispose of the question by simply declining indiscriminately all risks of this character cannot have forgotten that there were certain underwriters at the time of the "sprinkler" craze—not over even yet—who accepted all risks said to be "sprinkled" without prudent discrimination between the various makes of sprinklers, and without requiring a thoroughly efficient equipment. Companies that occupy this position, is morally certain, will lose many good risks and antagonize many valuable agents. Could

petroleum for fuel has undoubtedly come to stay, and a refusal to write risks in which it is used will afford opportunities for the energetic factory mutuals, of which, as in previous cases, they will promptly take advantage. Among the many fires attributed to the use of this product we may cite the following: Warsaw Salt Works, Warsaw, N. Y.; Britton Iron and Steel Company, Cleveland, Ohio; St. Paul Knitting Company, St. Paul, Minn, and Boston Woven Hose Company, Cambridgeport, Mass. The hazards attending the use of petroleum for fuel are largely controllable, and are dependent mainly upon precautions in regard to its storage and use. In every case in which a supply is stored it is suggested that the storage tank (not the tank for daily consumption) should be constructed of tank iron, with closed top, provided with a sufficient vent pipe, and be located not less than one hundred feet from any building except the pump house. These tanks are extremely liable to be struck by lightning, and should therefore be so placed that in such an event the overflowing oil will not endanger any neighboring property. The tank, moreover, should be enclosed by an embankment or wall of sufficient dimensions to hold its entire contents in case of leakage, overflow or bursting. The smaller tank in which the daily supply is kept, and from which the burners are directly fed, should stand on iron supports or solid masonry, and be connected with the storage tank by means of an underground pipe, furnished with a forcing pump connection arranged in such a manner that the oil can be forced to the supply tank as needed and the surplus reconveyed back to the storage tank when the works shut down at night or any other time. The shrewdest underwriters are refusing peremptorily to insure risks in which the oil arrives by gravity, as in case of failure to shut the valves, or where there is a leak, a disastrous fire may ensue. It has been found advisable to start the fire with wood or coal before the introduction of the oil, in order to avoid danger from flashes or explosions. The piping should be placed under ground as far as practicable, and should be supplied with valves to cut off the oil when desired. In the West, the following rates are now charged to cover this additional hazard:

If storage tank is 100 feet from the plant and under ground no charge is made, as underground tanks are not endangered by lightning. If over 50 and less than 100 feet and under ground, an additional charge of one-fourth of one per cent is collected. If from 100 to 200 feet from plant and above ground, one-fourth of one per cent is the additional rate. If between 50 and 100 feet distant and above ground, one-half of one per cent is added to the regular rate. In cases where tanks are nearer than the fifty feet, the risks are either peremptorily declined by leading companies or a special rate is charged.

The advocates of this kind of fuel claim that it possesses many advantages over coal, and it has been stated that the calorific power of petroleum for the purpose of generating steam and the evaporation of water is several times greater than that of ordinary coal. The many fire insurance companies who have had bitter experiences in writing electric light stations will not be made happier by the announcement that its use in electric light stations bids fair to become frequent. One electric light expert, who had used this fuel for some time, recommended it highly at the recent Electric Convention. In his address he said:

"Its advantages over other fuels are many. In the first place, it is much easier handled; a steadier fire is easier maintained under your boilers, consequently the steam is kept at a more even pressure, a very important thing in the running of electric lights; there is no opening of furnace doors, allowing cold air to come in contact with the boilers, and there are no impurities in the oil such as abound in coal. When through with it, by a simple turn of the wrist your fire is put out, and your ashpits are as clean as they were before the fire was started. In less time than it takes to tell it you can start the fire. It is only rivaled in handling by natural gas; and even then, unless we have all the modern appliances for the handling of this gas, it is far easier to manipulate."

Efforts are being made in Russia to solidify the oil by the addition of soap, but with slight success. In solid form it would be much less hazardous.—*N. Y. Bulletin.*

Axle Grease.

BY H. KRAETZER.

1. Axle grease for light wagons: 25 kilos transparent red rosin, and 25 kilos of common tallow, are melted in a large iron kettle at a moderate heat. As soon as these are perfectly melted, the mixture is well stirred and 25 kilos caustic soda lye of 36° B. added. When the contents of the kettle no longer rise, 25 kilos linseed oil are gradually stirred in and the whole is heated to boiling for 15 to 20 minutes. The hot product is poured through cotton cloth into a wooden tub and left to cool. When cold, this grease has a fine yellow, butter-like appearance, and renders excellent service for light vehicles.

2. Axle grease for light wagons for summer use. Melt 10 kilos red, transparent rosin over a low fire, until it is perfectly fluid. Then stir in 3¾ kilos linseed oil and 6¼ kilos tallow, continue the heating over a moderate fire for a short time and pour through cotton cloth into wooden tubs.

3. Axle grease for light wagons for winter use. This is made in the same way as the foregoing, the 6¼ kilos resin being replaced by 6¼ kilos linseed oil and 7½ kilos tallow.

4. Axle grease for heavy wagons for summer use. In an iron kettle over a strong fire are melted together 40 kilos water, 250 gms. crystallized soda, 3½ kilos palm oil and 3 kilos tallow. The molten mass is stirred until it acquires the consistency of axle grease.

5. Axle grease for heavy wagons for winter use. Prepared the same as the previous one, using 30 kilos water, 1 kilo crystallized soda, 6 kilos palm oil and 3 kilos tallow. The two latter greases may also be used on railways.

Greene County Oil.

On Saturday last there were nine producing wells in and around this town, all within easy gunshot range of Charley Skinner's temperance tavern. Four drilling wells were in the sand, two of which have since come in; the other two are classed among the doubtful wells and their arrivals, so to speak, at the oil horizon, may cause more of pain than pleasure. The total production of the nine good little wells on Saturday morning was a trifle under 600 bbls. a day, which, as Greene county wells go, is a very clever average of 66 bbls. and better per well a day. The biggest and best well in the pool had a record on Saturday morning, October 27, of 5 feet 4¾ inches in a 250 tank, which in round numbers amounts to 160 bbls. a day. This well, which at the time was the newest as well as largest, is located on the J. R. Donley farm, and is the property of McCool, Jennings, Roth, Peffer, Reed, Bryson, Todd, et. al.; doing business under the name of Mascot Oil Co. Whether there is much or little in a name, there is a good deal in the well; and most any one would be willing to go to the burlesque stage for a name if he were certain of meeting such legitimate results. The poorest well in the field yields only salt water and that bears the trade mark of McFadden, McFadden, of Richburg. His name is not Dennis, but his'n is that kind of a well. There was a time, however, McFadden got wells, the "Father of His Country" might feel complimented in furnishing names for McFadden is not even protected in his right to discover and maintain salt wells. The Chartiers Oil Company, which is in no sense hard up for salt, is registered as a competitor with the man from Richburg as a promoter of the great saline industry. Its first salt well is located on the Snyder lot, a short distance southwest of town, and it ain't much of a water well either, but that's all it is good for. Faull & Shea's No. 2, on the W. G. Morris farm, and Davin & McClure's well on a village lot, came in Monday, both showing for 50 bbl. wells. The most interesting well in the field at this writing is the Olson well, on the Jones lot, which was one of the first wells to start after the Hukill well came in. It is 100 rods west and a trifle north of the original Alexander well, and the indications just now are somewhat pointedly for gas. The gas was found fome 15 or 20 feet above where the oil is usually found in the rock, and it is so strong as to interfere with the drill. Several days drilling may be needed to overcome the short distance supposed to intervene between the pay streak. For Mr. Olson's sake, who has been a patient toiler in hard luck, it is to be hoped the compensation will be generous when the pay streak has been reached. But if this well gets only gas, Mt. Morris will be shorn of its brilliant plumage, and its dream of oil, as it were, are as good as over. Production will not cease as a direct consequence thereof, but the expansive power needed to produce great results wont be there. Considerable property is changing hands, lands obtainable on the simple guaranty of a solemn promise are being tied up to await the march of developments. Among the latest arrivals is Mr. Thomas Loan, the big real estate broker of Olean, New York. He came in style, and the fact that he has brought his knitting with him would suggest that he proposes to stay. In view of the almost impassable condition of the roads he came in on "critter back." The celebrated Duke of Montalavan served as his mount. The Duke has a record of 1,41½ and a pedigree as long as my friend Bill Piper's baptismal title, with enough genealogical data to turn the head of the laymen. Ordinarily there is nothing lofty about Tom, but his stature, his politics and his pure North of Ireland dialect, but since his association with the Duke began, he is another man entirely. The good people living along the Greensboro road, tell various tales of a lone horeman passing that way on Saturday last, and such exhibitions of horsemanship as he gave them is seldom seen outside a first class circus. His speed recalled the ride of Tam O'Shanter. The simple country folks, unable to find a suitable synonym, describe him as going like the wind. Sometimes he rode on the Duke's neck and more times he was balancing slenderly on the sharp cantel of a country saddle, and then bounding lightly, ever and anon, from the sharp canter, to a blunt and ball like pummel of the same and vice versa; never for a moment relaxing his wind-splitting gait. Did he want to ride at this reckless rate? No, but the Duke did; and the Duke in addition to a good deal of horse sense, generally had his own way. Possibly he recognized in the gentleman from Olean a man of ducal blood, and he wanted to give him a lively ride. Did Mr. Loan have hands? Of course he did, and they were fully occupied every moment of the flight; now breaking the monotony of a rude descent on one end of the saddle, anon performing a like charitable service for a similar experience at the other; again when not employed in protecting some exposed part of his anatomy they were industriously, but vainly, tugging at the reins. He found ample employment for his two hands, and if he'd had a dozen instead of a mere pair, he could have used them all to good advantage. His hands are badly lacerated from tugging at the reins, and he has blisters on his pantaloons—real live red-headed fellows—big as trade dollars, and the kind that hurt, from pounding the saddle. No more royalty for Thomas. Hereafter an every day plebian livery horse is good enough for him. It is the best introduction he could have. He is now known from one end of the road to the other as the man that rode Captain Flenniken's Duke, and it may be instrumental in procuring leases that may make his fortune.—*Mt. Morris cor. Derrick.*

Industries of Nantes, France.

REPORT OF U. S. CONSUL H. A. SHACKELFORD.

The oil factory of Chantenay has used in the manufacture of oils the following quantity of oleagenous articles employed for this purpose:

	Kilograms.
Cocoanut	1,200,000
Sesame	460,000
Arachides (pea-nuts)	550,000

The oil produced is mainly in the manufacture of soaps. Quantity produced during the year:

	Kilograms.
Castile soap	2,400,000
Other soaps	1,100,000

Oil cake has had an active sale during the year at advanced prices.

The yield of salt from the marshes on the coast for the year 1887 amounted to 60,384,680 kilograms. Although this is double the quantity produced in 1886, it is but a low figure compared with the year 1884, when the yield was 113,000,000 kilograms.

The merchandise loaded and unloaded on the quays of Nantes in 1887 amounted to: Exportation. 108,157 tons; importations, 382,880 tons; total; 491,037 tons.

IMPORTS IN 1886 AND 1887 OF FIVE LEADING ARTICLES.

Articles.	1886. Kilograms.	1887. Kilograms.
Lard*	289,557	5,543,310
Tar & pitch†	11,734,478	8,120,965
Lead ore‡	10,965,067	8,578,207
Petroleum§	303,097	201,649
Starch‖	471,875	563,862

* From England, Spain and Mexico.
† From England, Russia, Belgium and the United States.
‡ From England, Belgium, Spain and Italy.
§ From England and the United States.
‖ From England, Germany and Belgium.

State Taxation of Commercial Travelers.

The following opinion is expressed by *Bradstreets* on the above subject:

One would hardly have thought it necessary for the Supreme Court of the United States to consider the question of the constitutionality of state taxes on commercial travelers after its decision in the Robbins case last year. That decision clearly laid down the doctrine that in so far as commercial travelers are the agents of interstate commerce in so far must they be free from taxation by states and municipalities. The specific points decided in that case were that a salesman from one state entering another to solicit orders or negotiate sales by sample or otherwise is engaged in interstate commerce, that a tax on him by way of license is an interference with interstate commerce such as falls within the jurisdiction of Congress alone, and that the neglect of Congress to impose restriction or regulation in any manner of interstate commerce in which it has jurisdiction raises the presumption that Congress deemed no regulation necessary and intended that none should be imposed. Most people regarded this decision as settling beyond question the principle that state laws imposing taxes on foreign travelers are unconstitutional. In several of the southern states, however, laws imposing such taxes have been kept upon the statute books, and in one state, Texas, the court of last resort, refusing to follow the decision of the Supreme Court in the Robbins case, decided that a law of the state imposing taxes on commercial travelers from other states was valid. The Constitution declares that judges in every state shall be bound by the Constitution and the laws made in pursuance thereof, anything in the constitution or laws of any state to the contrary notwithstanding, and one would think that with equal reason the authorized interpretations of the Constitution by the Supreme Court should be recognized as binding on the state courts. Be that as it may, however, the Texas court declined to regard the Robbins decision as settling the question as far as that state was concerned.

The Supreme Court has now, after very brief consideration, emphatically reasserted the doctrine of the Robbins case, and reversed the judgment of the Texas court. It declined even to hear argument against the constitutionality of the law, listening only to argument in defense of the position of the Texas court. Its decision is broad, clear and unmistakable. It is to the effect that all State laws imposing license taxes upon commercial travelers not residents of the State imposing the tax are unconstitutional. After this emphatic reassertion by the Supreme Court of its former opinion, there should be no hesitation on the part of such States as still maintain them about removing from their statute books laws taxing commercial travelers from other States. The decision of the Supreme Court, we need scarcely say, does not operate to repeal those laws. Its only effect is to make them unenforciable upon individuals. But the fact that they are unenforcible makes the retention of them upon the statute book an absurdity. It is hardly probable that any further attempts will be made to enforce legislation the principle of which has been condemned by the court of last resort, and from the enforcement of which relief may be had upon application to the courts, and we look to see the last of these laws repealed before long. They are, as we have already said, repugnant to our political and economic system, and the sooner the last vestige of them is done away with the better.

Olive Oil Mixtures.

An important prosecution was instituted at Burton-on-Trent, says the London *Grocers' Gazette*, when Mr. Alderman Evans, who carries on an extensive provision business, was summoned by Mr. J. E. Morris, of Wolverhampton, county inspector under the Food and Drugs Act, for selling adulterated olive oil.—Mr. Morris said the case which he had to bring before them was one in which they would recognize an old friend in the cottonseed oil. Some little time ago it was discovered that cottonseed oil was being sent in large quantities to Italy, and in consequence he deemed it necessary to purchase oils which he thought contained it. He bought several lots of olive oil, but in the case before their worships he wished to say that Mr. Evans, in disposing of the oil, had no fraudulent intention, for he (Mr. Evans) bought the oil four years ago from a respectable firm, and sold it as pure oil. Therefore, if the Bench found the article was adulterated, he (the inspector) would simply ask their worships to inflict a small fine. Evidence was then given by Samuel Toy, Mr. Morris's assistant, showing that on Sept. 4 he went to defendant's shop and asked for a flask of olive oil, which was supplied him by an assistant, and for which he paid 8d. After purchasing it he divided it in the usual manner, and one sample was sent by Mr. Morris to the county analyst, whose certificate showed that it contained 50 per cent. of cottonseed oil. The difference in value between these two oils was that while olive oil was worth £35 per tun, cottonseed oil was only worth £19 to £20 per tun.—Mr. Evans: I should like to say a word or two. I may state that this is the first case of the kind that has been brought before a bench of magistrrtes in this district or in the Midland Counties. - Mr. Morris (interposing): I may say this is the first case in the kingdom of the kind, though several are pending. There has been a case where the whole was cottonseed oil.—Mr. Evans, continuing, said he was at the Grocers'-exchange, in Birmingham, on Monday, and mentioned the case to the president of the Grocers' Association, who said he had not heard of a case of that kind before. It would, however, be of great importance to the grocery trade in the future. He was not there to say the oil was not sold, nor to refute anything that had been stated by Mr. Morris or Mr. Toy, but he should like to say that he sold very little indeed of this oil. The oil that he sold was bought by him as far back as 1884, when he purchased a case containing 30 bottles. When he sold this oil he generally asked if it was for domestic purposes or for machinery. He did not usually sell it for domestic purposes for during the time he had had these thirty bottles he had sold thirty dozens of oil of another sort as salad oil.—Mr. Turner: I suppose customers usually called for salid oil? Mr. Evans: Yes, it is known better as salad oil or flask oil, and not once in ten cases am I asked for olive oil. He went on to say he was one of the oldest trades men in the town, and he had no desire to sell anything that was impure. The oil was packed in Italy and was sold to him in good faith by one of the first houses in London, and he sold it exactly as he bought it, it being far from his intention to defraud the public. The magistrates adjourned to their private room, and after a few moments' absence the Mayor said the Bench had fully considered the case, and they felt bound to convict, although, under the circumstances, they would impose a very small fine indeed. They wished to point out that olive oil was asked for and purchased as such, and it was found to be adulterated. That was the point to which they must call Mr. Evans' attention. It was not a question of whether cottonseed oil was less valuable than olive oil, for, according to the Act, if olive oil was asked for olive oil must be supplied. They did not believe it was Mr. Evans' intention to deceive his customers, for he bought the oil as olive and sold it as such. They hoped, however he would be able to get redress from those who supplied the oil to him. A fine of 5s and costs, £1 14s 6d, was imposed.

NOTICES.

NEW YORK, Nov. 5, 1888.

THE firm of Moore, Foster & Co., Oil Commission Merchants, 154 Maiden Lane, New York City, has been dissolved. Mr. Geo. A. Moore, and Mr. W. H. Crosby have formed a co-partnership under firm name of MOORE & CROSBY, with office at the above address.

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UNION PASTE CO.: BRIDGEPORT, CONN, Feb. 14, 1882.
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UNION PASTE CO., Boston, Mass.: NEW YORK, Oct. 16, 1883.
Gents.—We are using your Glutinant for pasting labels on tin with greater satisfaction than anything we have heretofore used. Yours very truly,
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UNION PASTE CO., Boston, Mass.: BURLINGTON, Iowa, Sept. 14, 1885.
Gentlemen.—We have used your "Glutinant" for labelling on tin for a good many years and give it preference above all other pastes we have tried for the same purpose, as it has never failed to give us perfect satisfaction: *it holds labels tight to the tin and never rusts them.*
Yours very truly, THOS. WILKINSON & CO., Burlington Paint and Color Works.

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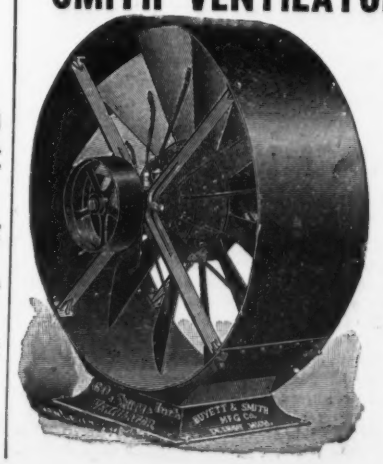

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"MYSTIC" BRAND OIL

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HIGH GRADE LUBRICATING OILS.

IT IS

Light Lemon Colored, Odorless, Bloomless.

Gravity 14 deg. Fire test 375 deg.

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Pennsylvania White Lead Co.,

ESTABLISHED 1844. INCORPORATED 1887.

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CARTER WHITE LEAD CO. STRICTLY PURE DIAMOND BRAND TRADE MARK WHITE LEAD OMAHA, NEB.

$100 FORFEIT

IF THE CARTER WHITE LEAD DOES NOT COVER ONE-THIRD MORE SURFACE THAN ANY OTHER WHITE LEAD IN THE MARKET.

TO THE TRADE:

We take pleasure in informing you that we have opened an office and warehouse in New York City, at No. 5 Dutch Street, between Fulton and John Streets, where we shall carry a full stock of White Lead. This step has been necessitated by the increasing demand for our product by the trade in the South and East, requiring facilities for securing our Lead more promptly than it was possible for us to deliver it from Omaha. We request our friends in the Atlantic Coast States to send their orders in future to this office, where they will have prompt attention.

Prices and terms will be gladly given on application, also will send a small sample keg to parties desiring to make a test in a practical manner.

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ATLANTIC WHITE LEAD PURE WARRANTED ROBERT COLGATE & Co. TRADE MARK

Red Lead, Powdered and Flake Litharge, and Glass-House Lead.

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Refined Glass-House Lead

Especially adapted for the manufacture of the FINEST QUALITIES OF GLASS, and we guarantee its UNIFORMITY.

LINSEED OIL,

RAW, BOILED AND REFINED.

Also a Superior Grade especially adapted for Varnish Makers' use.

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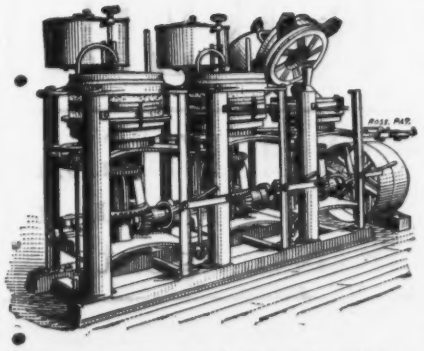

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PAINT MARKET.

Note—*Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures.*

The prices current will be found on page 49.

TUESDAY EVENING, Nov. 6, 1888.

White Lead, Zinc, Etc.

The pig lead market opened dull and somewhat depressed following our last, but on Thursday a brisk buying movement set in, consumers showing anxiety to secure supplies and prices began to ascend under sales of some 482 tons up to Saturday. On Saturday the demand subsided and the market closed irregular at 3 65c bid and 3 80c asked for spot. Today the market was lifeless but retained a firm tone. At the second call the market stood 3 70c bid and 3 85c asked for November and 3.67½c bid and 3.82½c asked for December. There were no sales under the rule during the week.

White has been quiet, the demand being entirely of a jobbing character. The market maintains a firm tone, the Association quotations still governing.

The demand for American oxide of zinc has continued of fair proportions and small sales, in a jobbing way, are noted at our previous rates of 4½@4¾c, according to quality. French zincs are unchanged from last week, and conti ue to rule at 6¼c for dry Antwerp red seal in bbls of 200½ lbs; Paris red seal 6¾c, and 7¼c for Paris green seal. Discounts on French are as follows: To buyers of 10-bbl lots of one or assorted grades 1 %, 25 bbls 2 % and 50 bbls 4 %. No discount is allowed on less than 10-bbl lots, and discounts include brokerage.

Dry Colors.

REDS.

In common with business generally, the market for dry colors has been without feature, during the week under review, all the attention of dealers and consumers being taken up with the presidential contest. Immediately upon the settlement of that matter all look for a better feeling and an increased demand. English venetian reds have been sold in the regular way for consumption at prices that are identical with those quoted in our previous issue, namely, $1 45@1 50 for special brands in large lots, while other grades in smaller quantities are selling at $1 35@1 45. American kinds have been in moderate request with the market featureless at prices quoted at 90c@$1 05 for ordinary grades, while some special brands are held at $1 20@1 25, according to make and size of order.

Cobalt Oxide—The market has continued to rule quiet tnough a steady tone has been evidenced. The demand has been light with values ruling at $2 60 for black and $2 90 for prepared.

Orange Mineral—No material change has taken place since our last writing, prices are quoted firm and at good rates, with no special trading noticed. The following rule, 8¾@9¼c for German, English at 8¾@9¼c and French at 9@9¼. Domestic has been selling at 8@8¼c, according to quantity and quality, with a moderate inquiry noted.

Carmine has moved in the regular way for consumption, but buyers have not purchased more than enough to supply their actual needs. Our former rates of $2 70 in bulk, $2 80 for boxes or bottles, and $3 70 in oz bottles, continue to be quoted.

Quicksilver vermilion has been without feature, with trading characterized as moderate and on the small jobbing order. Prices are ruling at 60c per pound for 100-lb kegs or over, and 61c for kegs of 30 or 60 lbs, with a steady tone prevailing.

Red lead and litharge have sold to a moderate extent, but no special trading can be recorded, and no changes of any kind have taken place. The following prices represent the market: 6¾c for red lead in casks and barrels, and 7c for smaller lots, subject to a rebate of ¼c for cash, 60 days, and an additional 2½% for cash, 15 days. For litharge 6½ is quoted.

BLUES.

The market for these pigments has ruled without feature during the week under review. Sales have been small, and in jobbing lots, sufficient to supply actual requirements. With the close of the present political excitement, it is hoped, that the market will present a more rosy appearance, particularly as regards trading. Quotations continue at 25@30c for Prussian blues, according to quality, etc., while the asking figures for Chinese are 48½@50c. The other blues are at our previous rates.

GREENS.

Green pigments have been inquired for to a moderate degree, but no large transactions can be noted. Paris is quiet at the moment with nothing new worthy of mention. Old figures are nominally quoted at 18¾c for arsenic kegs or casks; kegs, 100 to 150 lbs, 19¼c; 14, 28 and 56 lb iron cans or boxes net weight only, 20¾c; 2 to 5 lb paper boxes, 20¾c; 1 lb paper boxes, 21¼c; ½ lb paper boxes, 23¼c; ¼ lb paper boxes, 25½c. Free on board at New York, Philadelphia, Boston or Springfield, Mass. On all sales made by jobbers from points west of the Alleghanies and New York State and in the Southern States, not less than ¾c per pound must be added. Terms, payable July 1st, 1888. Discount 6 per cent per annum for unexpired time. No brokerage or commission allowed to buyers Rebates subject to rules and regulations made in conformity with the request of the National Wholesale Druggists' Association. To buyers of pure paris green, purchased from manufacturers who have conformed with the desire of the Druggists' Association, of 500 to 1,000 lbs during the season, ½c per lb; of 1,000 to 2,000 lbs, 1c per lb; of 2,000 to 4,000 lbs, 1½c per lb; of 4,000 to 10,000 lbs, 2c per lb; of 10,000 lbs and over, 2½c per lb. To buyers of 5 tons or over, at one time an additional rebate of 1¼ per lb will be allowed.

Miscellaneous.

Sulphate of Barytes—The market has been quiet, with stocks in limited demand and quotations unchanged: $21 50 for special brands of imported: best No. 1 at $17 50@18 50, according to quantity: best off-colored grades at $15, No. 2 at $14 and No. 3 at $12.

Chalk continues to be quoted nominally at high figures, with nothing offering, and no transactions reported in consequence.

China Clay—All grades have been in but limited request. With the market featureless and stocks in good supply, our previous quotations continue to rule at $13 50 for low grades, mediums at $16 and high grades at $18.

Talc has not been inquired for to any extent, the trading being of the smallest nature for actual consumption. Quotations are ruling at 1¼@1¾c for French, and ⅝@1¼c for American, according to quality and quantity.

Terra Alba is without feature, and the week has been rather a dull one. Quotations for

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LINSEED OIL,
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Red Lead, Litharge & Orange Mineral
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Established 1772.
We are prepared to supply the Trade promptly, with our long established and reliable brand of
Pure White Lead
IN OIL,
unsurpassed for whiteness, fineness and body.
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JOHN T. LEWIS & BROS. WARRANTED PURE WHITE LEAD. PHILADA.
TRADE MARK.
Painters' Colors
Orange Mineral,
Red Lead.
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Oxides
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Varnish Maker and others
Requiring Pure Goods
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Raw, Boiled and Refined.

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CINCINNATI,
Pure White Lead
RED LEAD, LITHARGE.
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99 Maiden Lane, New York.
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ESTABLISHED 1825.
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English White Lead, Ochres, Umbers, Siennas, Indian and Venetian Reds, and China Clay, V. M., French Zinc, Refined Yellow Beeswax.
We claim to have Our Paints for Grinders of the Best Quality and Most Finely Prepared.

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We are the only Parties in the United States who make

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410 ALMOND STREET ST. LOUIS MO.

The Largest Works in the World.

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Patent Hydro-Carbon Gas Black.

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J. H. MORLEY & CO. STRICTLY PURE WHITE LEAD CLEVELAND.

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CHARLES MOSER & CO.,

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ARTISTS' OIL COLORS

IN PATENT COLLAPSABLE TUBES.

White Lead and Zinc White

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"Economy" Ready Mixed Paints,

QUICK DRYING CARRIAGE PAINTS,

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For manufacture of durable and brillian I Varnishes, Japan, Enamel, &c.

Adamanta M'f'g. Co..

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NOLEN & BOARDMAN

SUCCESSORS TO CARBON BLACK CO.

CARBON **GAS BLACK**

MADE UNDER LETTERS PAT. OF SEPT. 1872, MAR. 1875, MAY, 1881.

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PAINT YOUR BUGGY FOR

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—WITH—

DETROIT WHITE LEAD WORKS'

CARRIAGE BLACK.

If you wis your gear in color, use our WINE COLOR, VERMILION, YELLOW or GREEN.

The original and best Ready-Mixed, Varnish Gloss,

CARRIAGE PAINTS.

Four Years Uninterrupted Success and not a Single Complaint

COLORS FOR GRINDERS AND MANUFACTURERS.

LOW PRICES. BEST QUALITY.

JOHN LUCAS & CO.,

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WM. E LUCAS, 80 Maiden Lane New York.

best quality of French are 75@80c per 100 lbs, with a lower figure named for an inferior article. No. 1 American continues fairly active at 70@75c per 100 lbs. No. 2 American is unchanged at 36@40c per 100 lbs.

WHITING.—The market for this article is exceedingly firm, and it is said that offers of 60c for common have been refused. No material change in the situation can be noted. For gilders 70@75c is quoted.

Glues.

There is but a limited demand and that confined to consume: s' present necessities. Better things, however, are hoped for after the election. The imports are again falling off, and it is claimed by careful authorities that the statistical position of hide stock glues warrants higher figures.

Glass.

WINDOW GLASS.

Local dealers in American window glass report a brisk demand from consumers, some claiming to be unable to fill their orders promptly. Prices, however, remain unsettled, quotations depending largely upon the buyer and quantity wanted. Nominally the discounts are 75 and 10@75 and 10% on single and 80@80 and 5% on double. Reports from the west indicate a very unsatisfactory condition of affairs, and point to a continuance of low prices. French window glass of desirable sizes is reported to be scarce, and as trade of late has shown steady improvement prices are maintained with considerable firmness.

PLATE GLASS.

There has been a fair amount of business in this department but trading lacks the spirit usually observable at this season of the year. There is no change in prices.

Asphaltum and Oil.

Although the variety of California products have already astounded the world, other and equally valuable ones are being discovered from time to time and added to the long list which every true Californian refers to with a pardonable glow of pride. Her gold, silver, onyx, borax, quicksilver, iron, etc., have now an addition to their companionship in the discovery and development of extensive and marvelously valuable asphalt deposits among the oil fields of Petrolia District, Los Angeles county. The deposit, a most extraordinary one, is located upon land owned by The Petrolia Asphaltum and Oil Company, twenty miles east of Los Angeles, within two miles of the Atchison, Topeka & Santa Fe road, within five miles of the Southern Pacific main line, and but eighteen miles from tide-water, affording excellent facilities for cheap and enormous transportation to all parts of the world. The company owns 580 acres of land, almost wholly rich in asphalt deposits, consisting of millions of tons, while numerous oil springs flowing down gulches and ravines add immensely to the enormous value of the holding of this company. An oil well pierced to a depth of 380 feet passed through solid asphalt the entire distance, and has been flowing oil for the past twelve years, while in the immediate vicinity are many wells yielding from twenty-five to fifty barrels per day.

The great extent of this deposit having been demonstrated by actual investigation, the next question necessary to fix a permanent value must be the market demand. The general use to which it is being applied, for paving, roofing and other purposes here at home, insures sale for all that might be mined were there no outside patrons clamoring for supplies. We can state that urgent orders are steadily arriving from Boston, Philadelphia, Chicago, Omaha, Topeka, Cleveland, Kansas City and other points, while Australia is not behind with orders for large shipments. Thus it will be seen that notwithstanding the great deposits, the nominal cost of mining and unsurpassed facilities for transportation, it will necessitate the utmost activity to meet the wants of such extensive and enormous patronage. Recent London quotations give the market value of refined asphaltum at $100@140 per ton. It will thus be seen that it requires no fictitious figures of calculations to show the great value of this deposit, not only to the mine owners, but to the country at large.

At the recent State Fair in Sacramento the *Journal of Commerce* exhibits in its cabinet, among other California products, specimens of the asphalt in its natural state, and can say that it attracted more attention and general interest than the magnificent gold-bearing quartz taken from the richest mine on earth.

In order to ascertain the real value of the deposit before making a large expenditure of money, the company forwarded some surface samples, which had undergone climatic changes for ages, to the United States National Museum at Washington under the direction of the Smithsonian Institute, and

(Continued on page 20.)

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METALLIC BROWN.
Guaranteed the Best Paint in the market for
TIN, IRON AND WOOD

Contains No Grit.
Unequalled in Fineness.
For Dealers' and Grinders' Use.
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Excelsior and Artisan Flint Paper
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Warranted Unequalled in Body, Strength and Fineness.
65 Per Cent. Iron and Free From Sulphur.
Grinds smoothly with 18 lbs. oil to 100 lbs. oxide.
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Mix with hot water and use when cool.
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THE particular attention of paint and varnish manufacturers and users of these articles is directed to a very useful book entitled "*Painting and Painters' Materials*" by Charles L. Condit, which treats of Oils, Pigments, Varnishes, Driers, etc., in a thorough manner. This is the only book treating these subjects upon the basis of scientific investigations made in Holland, Germany and France. Send $2.25 to this office and we will mail a copy at once.

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received in response the following official report:

Mr. John H. Walsh, Sir: The sample of asphalt that you presented to me for examination on the 1st inst. contains 29·6 per cent. of pure asphaltum. The well known "petroleum spirit extraction method" was the one employed. The residual 70·4 percentage or constituents is made up of oxide of iron, sulphide of iron or iron pyrites, alumina, silica, trace of magnesia, lime, water, etc. The latter substances were not estimated, as they are valueless and possess no particular bearing upon the case.

I unhesitatingly pronounce this specimen to be of great value as a commercial article, and capable of easy refinement.

Of course, this alphalt will not compare with that obtained from Pitch Lake, Trinidad, (which is liquid and almost pure) in yield, but, when we reflect that asphalts yielding as low at 9·76 per cent. of the pure materials (as is tne case with the Val de Travers Asphalt) have paid big money, it is not unreasonable to believe but tnat this deposit can do the same. I am acquainted with only four varieties that surpass this deposit in purity. Two of these, so far as I know, are not in the market, and the other two are foreign.

As a significance utility of this substance, it may be remarked that it is now largely adulterated and even substituted by fraudulent matters, such as rosin, pitch, petroleum residues, and the like.

Asphalt is being rapidly introduced into the arts—its applications steadily multiplying—and is a readily salable article. Respectfully,

GEO. E. DOERING, Phar. D.

With this highly flattering analysis, work was quickly inaugurated, and subsequent developments have proven that the quality steadily improves as the deposit is opened, and may yet become one of the most valuable yet discovered.

The officers of the company are as follows: Directors, L. B. Benchley, Walter S. Maxwell, A. J. Ralston, Francis Smith and James Palache; president, L. B. Benchley; secretary, Andrew Baird; general manager, Walter S. Maxwell. San Francisco office, 438 California street.

TELEPHONE No. 2031

A Suggestion on Bleaching.

Dr. George Lunge, of Zurich, the eminent authority on technical chemistry, has made a suggestion with regard to bleaching which is well worthy of trial by paper makers. He proposes to use a small quantity of acetic acid in connection with the solution of bleaching powder for hastening the action of the solution. The first effect of the acetic acid is to form acetate of lime and set free hypochlorous acid. This latter acid gives up its oxygen in bleaching, being thereby converted into muriatic acid, which then attacks the acetate of lime, forming calcium chloride and setting free the acetic acid to continue its work as before. In this way a very limited amount of acetic acid is sufficient to intensify the action of large amounts of bleaching solution, and since acetic acid does not injure the fiber or form an insoluble compound with lime it is free from the objections to which both muriatic and sulphuric acids are open when used in this connection.—*Paper Trade Journal.*

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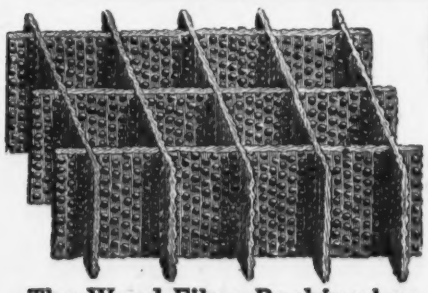

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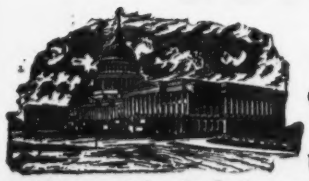

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CHEAPER than WALL PAPER or OIL PAINT.

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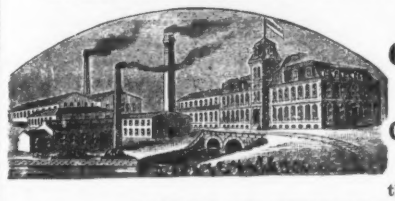

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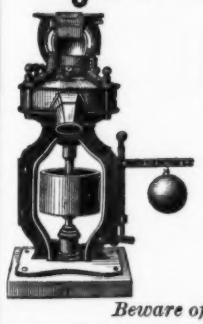

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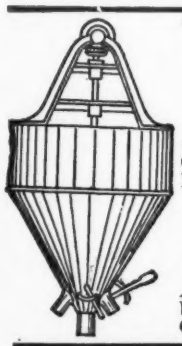

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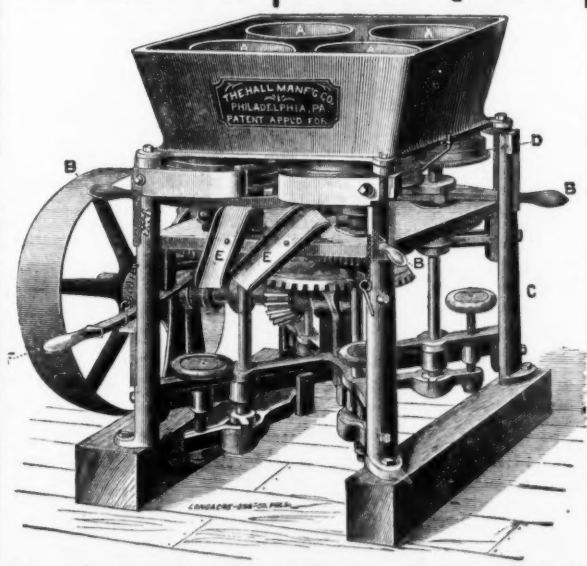

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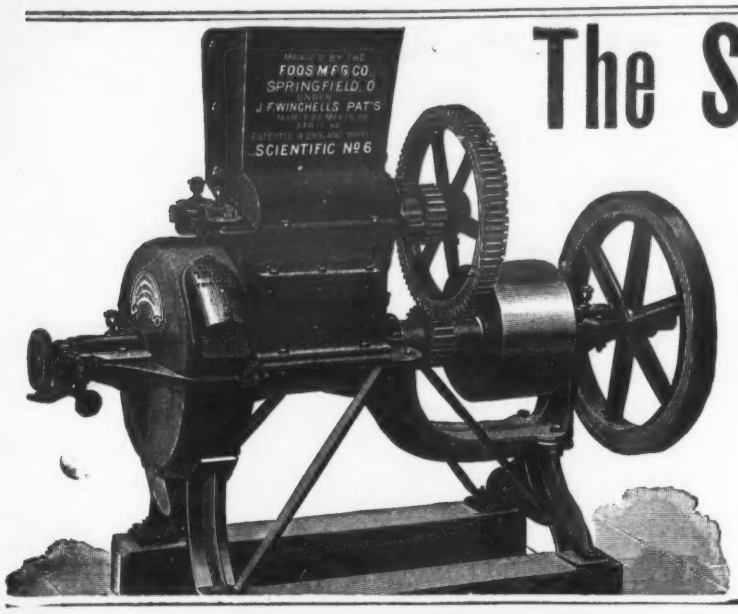

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The Best Mill on Earth.

Will **Crush** and **Grind Linseed, Cotton Seed,** or any **other kind** of **Oil Cake.** Can be fed into mill **as it comes from the press,** and reduced to meal in **one operation.** Is also adapted for grinding **Tankage, Guano, Phosphate, Fish Scrap** and **all kinds of Fertilizers;** also **Fire Clay, Brick, Coke, Soap Powder, Salts, Ochres, Umbers** and numerous other materials, including **Gums** and **Drug Stocks.** We make mills for crushing **Raw Bones,** in **all sizes** and **shapes, Oyster Shells,** etc., and will make experiments and report results, without charge, on any work.

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Manufacturers of
OLD PRESSED PARAFFINE OILS,
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MEDICINAL COD LIVER OIL
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SPERM, LARD, WHALE, COTTONSEED, ELAIN AND RED OIL,
"CLEMENTS" CORN STARCH, IN BOXES AND BARRELS, for Export and Manufacturers use. AGENTS EOR L. Z. O. OXIDE OF ZINC.
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MANUFACTURERS OF
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Spermaceti, Sperm Candles,
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Manufacturer and Refiner.
Refined Paraffine Wax
A SPECIALTY.
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ONE STAVE BARREL
TRADE MARK
DETROIT, MICH.

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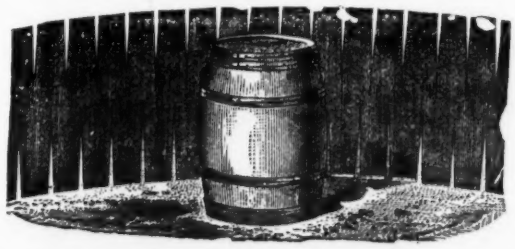

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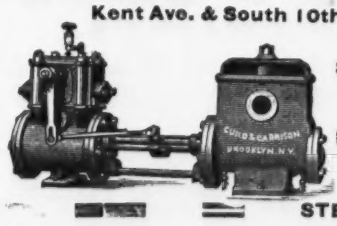

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AIR COMPRESSORS
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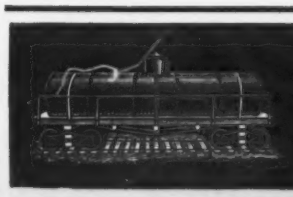

WM. B. POLLOCK & CO.
MANUFACTURERS OF
OIL TANK CARS, OIL TANKS AND STEAM BOILERS.
YOUNGSTOWN, OHIO.

OIL MARKET.

Note—*Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures.*

The prices current will be found on page 49.

Vegetable Oils.

TUESDAY EVENING, Nov. 6, 1888.

Linseed oil is firm at last week's quotations of 58@60c for city pressed, and 56c for Western on spot. Very little oil is coming here from the West, as crushers in that section can dispose of their product without sending to Eastern markets. The situation of foreign linseed is reviewed in our editorial columns. General business has been interfered with by the political campaign.

Cotton oil is changing hands in a quiet way without the bluster accompanying large sales, so characteristic of the market in previous years. The industry as a whole is in a better position than ever before known; the amount of stock in each market is accurately known throughout the season and operations are conducted on an intelligent basis instead of having every purchase or sale considered a risk. A steadier feeling prevails in consequence and there is an absence of the speculative tendency which causes violent fluctuations when least expected. Dealers are confident that prices will be maintained, and the course of values would seem to confirm that opinion. Buyers who expected lower quotations and postponed their wants until a "more convenient season," are realizing their mistake now, as prices have steadily gone against them since new crop oil was put upon the market. This is principally owing to the comparative scarcity of prime seed in the Southern markets, some mills in the interior having been compelled to close on account of the damaged condition of the seed which was offered. Later shipments of seed are expected to be of better quality. On account of the foregoing fact prime crude oil has been in unusually good demand since the season opened, as already related in these columns, and available stocks have been closely concentrated, but these will soon be released if not already, in filling orders of large consumers, principally for the West. There have been sales in this market of 700 bbls prime crude, chiefly to arrive at 42½@44c, and the market closed firm to-day at 43@45c, according to seller and location of supplies for round lots. Summer yellow and summer white are on the same basis and quoted at 52½@55c, according to quantity. The supply of refined oil is yet very limited. Offerings of lower grades are more liberal, and the movement, although light, amounts to considerable in the aggregate.

Exports of cottonseed oil from New York by countries

To	For week ending Nov. 3, 1888, Gls.	Since Sept. 1, 1888, Gls.	Same time last year Gls.
Africa	..	....	....
Arg. Republic	..	101	....
Australia	96	96	788
Austria	..	....	..
Belgium	..	30,000	9,786
Brazil		2,411	957
Br West Indies	2,239	9,698	3,767
Br Guiana	..	....	106
Canary Islands	..	....	....
Central America	..	44	30
Chili	..	10	672
China	..	....	....
Cuba	..	149	....
Dan West Indies	..	914	1,046
Denmark	..	150	....
Dutch West Indies	..	....	....
Ecuador	..	....	....
Egypt	..	....	....
England	..	5,190	4,042
France	..	....	65,008
French West Indies	..	....	..
Germany	10,000	60,204	1,849
Hayti		572	500
Italy	..	....	....
Japan	..	....	....
Mexico	..	2,293	24
Netherlands	..	229,130	3,500
North America		2,433	1,365
Norway	..	1,302	....
Peru	..	....	....
Pto Rico	48	48	900
Scotland	1,250	1,250	2,500
Spain	..	....	....
Turkey	..	....	....
U S. Columbia	..	120	448
Uruguay	..	....	
Venezuela	..	....	316
Total	13,633	351,491	130,902

Exports of cottonseed oil from New Orleans by countries:

To	For week ending Nov. 1, 1888, Bbls.	Since Sept. 1, 1888, Bbls.	Same time last year, Bbls.
Austria	..	....	....
Belgium	..	....	100
England	..	....	....
France	..	....	....
Germany	..	....	[400
Gibraltar	..	....	....
Italy	..	....	....
Netherlands	..	....	....
Portugal	..	....	....
Spain	..	....	....
Total		....	500

Exports of soap stock from New Orleans by countries:

To	For week ending Nov. 1, 1888, Bbls.	Since Sept. 1, 1888, Bbls.	Same time last year, Bbls.
Cuba	..	....	
England	..	....	1,505
Italy	..	....	
Spain	..	....	....
Total	..	....	1,505

Ceylon cocoanut oil is quoted at 5 40c but it is said that offerings from dock have been made at 5¼c; however, the latter report lacks confirmation. The jobbing movement is quite liberal. Cochin oil is stationary at 6¼c, and continues to be neglected. Holders are not anxious sellers as they consider the position of the article good for better prices later on.

Palm oil is held higher and the reason is assigned that a French syndicate has control of the foreign markets. Importers are asking 6c for prime Lagas on spot.

Olive oil is tending upward, the comparatively small supply on spot being held at 73c for Italian and as high as 80c for Spanish. The movement is liberal in a jobbing way.

Rapeseed and mustard seed oils are firm at previous prices of 65c and 53@55c respectively, but the elevated views of holders are restricting the movement. The demand is for prime grades and buyers pay full prices for a good article.

Animal and Fish Oils.

City pressers of lard oil are asking 74c for a prime grade, but sales have been made at 73c and this price would still buy. The feeling is steadier than usual, but very little business is passing.

The whale and sperm oil markets have been relieved of the Arctic scare. The steam whaler Brasher arrived from the Arctic Ocean on Saturday at San Francisco, and brought information that the thirteen whalers, with their crews af about 500 men, which were caught in the ice pack in September are safe. The Brasher is one of the vessels that stated on a relief expedition as soon as the news of distress of the other whalers was brought to Ounalaska. She could not get near the endangered vessels on account of the ice, but on October 2, after the vessels had been imprisoned nine days, a gale sprang up and the ice began to break. The whaling captains took the first opportunity to release their vessels, and in a day or two all were safely out of the ice. The information which made the position of the whalers uncertain, had no effect in stiffening values, but holders of crude products were not disposed to encourage sales until something definite had been received, and this having come to hand the markets will pursue their natural course. Whalebone is quoted at $4 per lb for Arctic, but less will buy.

Menhaden fish oil is still on a firm basis at 32c deliverod, but the inquiry has apparently subsided for the moment. Most all the fishing steamers have been laid up and the season is practically closed. It has been shorter than usual but more successful than some previous years, as fish have been plenty and the yield of oil large. The good results achieved from delaying the opening of the season will no doubt influence similar action next summer. There is a liberal accumulation of oil at factories, but the amount will not reach the stock held over last winter, and it is claimed that no surplus will be held by the time of the next annual meeting of the Menhaden Association. Owners of factories hardly know what to do with their scrap. The unfavorable weather has prevented the scrap from drying, and there has been no movement to speak of. What the fishermen gain in oil may be lost in the other article.

Mineral Oils.

The local trade in mineral lubricants is quiet and will probably remain so until the first of the year, as dealers are only buying sufficient to meet immediate wants, in order to avoid having much surplus at stock-taking time. Full prices are being realized. The greater demand is for paraffine and black oils.

Oil Cake.

The market here is inactive because of no supplies and quotations are nominal at $26 50 per ton for western linseed cake on spot. The firm tendency noted last week is still a feature of the market, but the scarcity of ocean freight is interfering with the movement of cake. The disposition in the west appears to be the withholding of offers until favored by freight room. There isno pressure either way to do business.

Wax, Lard, Tallow, Etc.

Our previous quotations on paraffine wax still hold good, crude of 126@128 melting point being held at 4½@4¾ and 130 at 5c, while refined wax is quoted at 6c for 115 test, 6¼c for 120 test, 6¾c for 125, 8c for 130, 9¼c for 135, 9¾c for 137 and 10½c for 140 test. The demand is light and stocks ample.

The lard market continues quiet and fluctuations are unimportant. Cash Western lard is quoted at 8.60, city steam 8c and refined steady at 8.75@10,25c.

Lard stearine is not wanted and quoted in a nominal way at 9½@9¾c, oleo stearine is offering at 7½c, without buyers.

Tallow is slow of sale at 5⅞c, at which figure it remains steady.

REED, HALL & HEWLETT
18 & 20 PLATT ST., NEW YORK.

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Animal, Vegetable and Mineral OILS.
Valve Cylinder, Signal, Machinery, Engin and Lubricating Oils.
Sperm, Lard, Tallow, Neatsfoot, Whale Elephant, Seal, Cod and Fish Oils.
Pure Spanish and Italian Olive Oils.
All grades of Pure Olive Oil Soap for Silk and Worsted Mills, either in bulk, bars or powdered.
Saponified Red and Elaine Oils.
Mineral Wool Oils and Wool Stocks.
Castor, Rape, Mustard and Cottonseed Oils
Paraffine Oils, Paraffine Wax and Beeswax.
All kinds of Lubricating and Axle Greas Tallow, Lard and Cottonseed Grease for Soap Makers.
SOLE EASTERN AGENTS
FOR THE
West Virginia Oil Company
PARKERSBURG, W. VA.
Producers of Pure Natural West Virginia Rock Oils.

Future City Oil Works.
J. J. POWERS & CO., ST. LOUIS, MO.
Refiners and Manufacturers of CRUDE, REFINED AND BLEACHED
COTTONSEED OILS.
Pure Winter Pressed Miners' Oils, White and Yellow, the best BURNING ever prepared for Miners' use; Superior to LARD OIL and at LESS COST. Guaranteed to remain limpid at Freezing Point.
OF Salad Oils,
PARAGON (TRADE MARK.) COOKING OILS
Purely Vegetable
Cottonseed Oil, Cake and Meal Reginnings & Soap Stock
CORRESPONDENCE SOLICITED.

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COTTONSEED PRODUCTS
Miners' Oils. Winter Yellow, Summer Yellow Summer White, & Cooking Oil.
CRUDE AND REFINED OILS,
Meal and Cake. Soap Stocks.
Correspondence Solicited. Samples sent on application

MICA AXLE GREASE.
THE CINCINNATI TRANSFER CO.,
Cincinnati, Ohio.
Mica Axle Grease is very satisfactory in every respect. *Quite superior to any axle grease we have ever used before.*
W. J. Winterbottom, Supt.
We endorse the above.
Griffith & Hill, Lumber Dealers.
Jas. Griffith & Sons, Planing Mill.
Springfield, Vt.
I have a large sale of Mica Axle Grease. *It wears three times as long as any I ever used.*
Minor W. Newton
Eldorado, Wis.
We have sold Mica Axle Grease for five years. *It is the best Grease manufactured.*
C. H. & Buell Anderson
Detroit, Mich.
I have used Mica Axle Grease for about *eight years* with the very best satisfaction. *It doesn't run off the axle in hot weather; and it doesn't chill and harden in cold weather.* I have used almost all other makes of axle grease *and consider the Mica worth more than twice as much as any other for my use.*
J. C. Carpenter, dealer in coal and wood
Manufactured by the
STANDARD OIL COMPANY,
Cleveland, Ohio.

Washington Butcher's Sons Company.

PHILADELPHIA, PA., U. S. A.

Office and Salesroom, No. 1 South Front Street.

Refiners of Lard,
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MINERS' OILS,	PRIME LARD OIL,
WINTER AND SUMMER WHITE COTTON OILS,	EXTRA No. 1 LARD OIL,
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Absolute Purity Guaranteed.

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American Oil Co. of New York,

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MANUFACTURERS OF

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OFFER FOR SALE ALL GRADES OF

Crude, Summer Yellow, Summer White, Winter White, and Winter Yellow Cottonseed Oil.

Soapstock.

Naval Stores.

Spirits Turpentine.—The market during the five days under review has suffered more or less from the political excitement in common with every branch of business. At no time during the week has the trading been active. The market, owing to the higher advices received from the port of production is firm in tone and prices again show an advance. The market closed to-dar, with this feeling predominant and 45½@46c quoted.

Rosins—The market for both low and pale grades has ruled firm in the interval since our last writing, and prices show an advance all along the line. The trading has not been active, owing to the limited supplies available. At the close to-day the market was firm for low grades, with pales scarce and strong The following figures were ruling: Strained $1; good strained, $1 05; E, $1 12½; F, $1 20; G, $1 25; H, $1 35; I, $1 50; K, $1 75; M, $2; N, $2 40@2 45; W. G. $3; W W. $3 50.

STOCK ON HAND AT

	Spirits.	Rosin.	Tar
New York, Nov. 3...bbls	2,230	24,433	267
Savannah, Oct. 26.....	13,594	65,706	....
Wilmington, Nov. 2.....	3,129	84,764	1,679
Charleston, Oct. 26.....	3,404	21,070	....
London, Oct. 22.....[4]	400	.. .	....

LONDON TURPENTINE STATISTICS.

Messrs. Watt & Son, London, under date of Oct. 20 say:

	1888.	1887.	1886.	1885.
Stock Oct. 20...	14,401	8,943	20,895	39,602
Delivered this week.....	1,201	1,269	1,146	975
Since Jan. 1....	52,446	57,802	59,924	47,167
Price Oct. 20....34s 3d		26s 9d	27s 9d	26s 3d
Nov-Dec.....34s 6d		26s 9d	——	26s 3d
Jan-Apl... ....35s —		27s —	28s 3d	27s —

Soapstone as a Paint.

The mineral soapstone, or steatite, is just now coming into prominence by reason of the valuable property it possesses as a pigment for protecting steel vessels against corrosion. In China, soapstone is used as the material for idols, and other figures which form the household gods of the Celestials. Hence it has been termed figure-stone. Its refractory nature lends itself to the manufacture of gas-burners and for use in furnaces. It is also used in the manufacture of crucibles. Its latest application, however, is that of a paint for protecting the insides of iron and steel ships and other structures, which difficult problem it is stated to have been the means of solving. Besides the purposes to which we have already alluded, soapstone is also largely used in China for preserving structures built of sand-stone and other stones which are liable to disintegrate under atmospheric influence, and we are told that the covering of powdered soapstone in the form of paint on some obelisks in China, which were hewn out of stone liable to suffer under atmospheric influences, has been known to preserve the same intact for hundreds of years. Soapstone may therefore be said to have extraordinary qualities in withstanding atmospneric influence, which have a great deal to do with the corrosion of seel or iron, for the inside of a steamer which, although not exposed to the incessant action of salt water, like the bottom, corrodes much more quickly than the outside. Soapstone has, however, another quality which eminently adapts it as a pigment for protective paints, and that is, the extreme fineness of its grain, as eve-yone who has handled this stone is aware. Ground soapstone is one of the finest materials which can be produced, and from the experiments which have been made, it is found that nothing takes hold of the fiber of iron and steel so easily and firmly as soapstone. It is, moreover, lighter than metallic pigments, and is said to cover a larger surface than either zinc white, red lead, or oxide of iron. The soapstone is mixed with a quick drying varnish of great tenacity and hardness, producing a paint of great covering capacity and firmness, presenting an enamel-like surface of a bright red color. In employing soapstone as a pigment for paint, the manufacturers have practically an imperishable article. Soapstone is neither affected by heat, by atmospheric influences nor by ordinary acids, and will, consequently, be a great improvement on the pigments employed in paints so far. Oxide, lead and zinc mixed with oil turpentine, and driers are usually employed in painting the inside of vessels, as well as bridges and all iron or steel structures which are liable to corrode. All these pigments undergo a change through being exposed to the atmosphere, and are all easily dissolved in acids, and can, consequently, only last for a limited period. For steel structures, particularly, these oil paints, as a rule, do not offer sufficient adhesive properties to protect the steel against atmospheric influences effectually, on account of the smooth surface and fine grain of the steel. As a strongly adhesive, hard setting varnish is employed in the present case, soapstone composition may be considered a distinct advance on the present method of painting. The soapstone composition will also preserve woodwork from rotting and sandstone from decay; it will render walls damp-proof, and will be found an efficient substitute for all ordinary paints.—*European Mail.*

Decay of the Flint Glass Trade on the Tyne.

An illustration of the decay of a flourishing British industry is furnished by the following, taken from the last issue of the *Pottery Gazette*, London:

The present condition, as a whole, of our manufacturing, mining and commercial progress is unquestionably a great industrial triumph, but this wonderful picture of national growth has, quite naturally, a series of reverse sides as well, and beeind the general prosperity there is the story of the decline, decay, and occasionally the total extinction of some ancient local industry, which, in its day, was a source of prosperity and pride to the district where it flourished. Of course, in some instances a transfer or removal to another district has occurred, but the local loss unmistakably remains the same.

One of the most touching illustrations of this, perhaps, is found in the present condition of the historic flint glass trade of the ancient city of Newcastle, which is the immediate subject of the present notice. Newcastle has been the peculiar home of the English flint glass trade for the last three hundred years. Probably about 1587, as near as can be traced, when Philip of Spain was vainly preparing his Invincible Armada, as a result of the wise fostering policy of "good Queen Bess"—which made her reign a truly great epoch in our industrial history—the Lorraine refugees were busily engaged in foulding the English glass trade in our "canny toon." And it is not too much to say that, unceasingly for three centuries until the month of March in this year of Victorian jubilee, Newcastle flint glass makers have been at work, without an interregnum, in some of the various branches of their interesting art. At last, however, "Ichabod" appears written on the silent remaining "cones," whose well-known clouds of very black smoke, though always appealing loudly to the inspector of nuisances, have been at least a source of support to large numbers of industrious people, and only one small "Black Bottle House" remain in the city, as if to emphasize the melancholy fact. * * *.

Sir Robert Mansell was a distinguished naval officer, and he appears to have been an enthusiastic glass manufacturer during the reign of James and Charles I., and gave employment to the foreign colony in Newcastle. The sage James is said to have "wondered Robin Mansell, being a seaman, whereby he had gotten much honor, should fall from water to tamper with fire;" and Sir Robert's steward (Howell) writes that his master "hath melted vast sums of money in the glass business." Sir Robert, however, appears to have stated ("Encyclopædia Britannica") "that glass works had been started at the Isle of Purbeck, Milford Haven and on the Trent, and had all failed, but he was successful at Newcastle-upon-Tyne." His royal patrons, by proclamation, "prohibited the importation of foreign glass" during his term, declaring that "Sir Robert Mansell had, by his industry and great expense, perfected the glass manufacture with sea coal or pit coal, whereby not only the woods and timber of these kingdom are greatly preserved, and the making of all kinds of glass is established, but to the saving of much treasure at home, and the employment of great numbers of our people." Sir Robert leased (February 5, 1637-8) "certain grounds, with the glass houses and tenements thereon," that "boundreth upon the Useburne on the west," and "a runnell at St. Lawrence on the east," with the river on the south, and "a place called Slatiford" on the north, for "twenty-one years at 20 shillings per year!" Sir Robert died in August, 1653. The trade appears to have increased rapidly, and "the Glass Houses" were leased by certain "Glassmen from London" in 1658.

In 1679 Jacob Henzey, William Tizacke and Daniel Tittery secured a lease of the "Western Glass Houses," and in 1684 of the "Eastern Glass Houses" also, for twenty-one years. And so in these protectionist times the trade extended in the city, and in 1710 a "Bottle House" and a "Flint Glass House" were at work "at the Close Gate," and colonies, so to speak, spread down the river to the Mushroom, Howdon Pans, and "Haining Shore, now called the Bill Key." About the year 1772, at the time of the "Great Flood," Brand declares that no less than sixteen large glass works were in full operation on the Tyne—thus, one for the manufacture of plate glass, three for crown glass, five for broad or common window glass, two for white or flint glass (blown), and five bottle houses (black and green). By the year 1777, over one hundred years ago, Newcastle exported glass to all parts of the world, and, as at this date an additional duty was levied for revenue purposes, the price of Newcastle glass was proportionately advanced. As we approach the nineteenth century, though detailed records are scant, other indications are abundant of the extraordinary development that had taken place. Perhaps during the first forty years of the century (specially about 1828) the local glass trade reached its maximum proportions. The great house of Sir Matthew White Ridley & Co., of the Newcastle Broad and Crown Glass Works, in the historic "Glass Houses," extending from the Glasshouse Bridge, on the Ouseburn, eastward, was the only manufacturing establishment in this earlier period of our local history that could at all compare in degree with the great engineering development at Elswick at the present time. While beyond the Forth, in the west, all was green fields and smiling open country, the east end and adjoining river was a continuous scene of activity and manufacturing interest. The "kelp" ships arrived in the Burn and the various "houses"—extending eastward in order, the "Calk House," the Broad or Western House, the "Crown House," the "House in the Hole," or Dock House, the Middle House and the Eastern House—were veritable hives of industry and for a long time of commercial success. The enormous annual output (for this early time) of 7,000,000 feet of window glasss of varius kinds was principally the produce of this firm. During this period and previously, other branches of the flint glass trade were being gradually established, and the "Northumberland House," at the foot of the Forth Bank, and other smaller firms turned out at that date perhaps the very best blown glass goods for which Newcastle had then become famous.

As the blown trade increased and developed, however, evil days gradually overtook the hitherto unsurpassed crown and window glass trade. The introduction of common sheet, and especially the importation of superior German window glass, and then the removal of the duty on glass, were among the causes that operated against its further career of prosperity. Some gallant struggles took place, great expenses were incurred, German and French workmen were introduced, but without satisfactory results, and gradually one "house" after another was closed, never to reopen apparently. The "Middle House" was closed in October, 1874, leaving only two houses at work. Wages were lowerpd in January, 1848, but the "Dock House" was closed in July of that year, and at length the last "pay" was made to the "East House" hands on December 30, 1848, as shown in the well kept wages book before us, and the great house of Sir Matthew White Ridley & Co. was finally extinguished.

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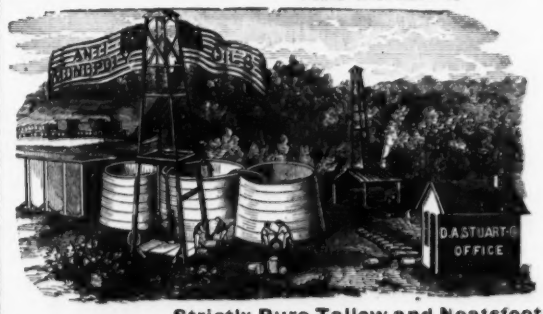

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PETROLEUM MARKET.

TUESDAY EVENING, Nov. 6, 1888.

The most prominent feature during the past week has been the lower range of prices caused by heavy selling on the part of Western operators, who were evidently counting on a large increase in the production consequent upon the expiration of the limit to restricted operations. That little need be feared from this source is clearly shown by the report of October field operations, which will be found reviewed in our editorial columns, and tabulated figures of the month's work are given below. During the week under review there was little of interest to note either in the way of field development or trade achievements. The success of the shut down agreement which expired by limitation on the 1st inst has been the most interesting topic of conversation (barring politics) in oil in circles. The gross stocks at the close of October, 1887, amounted to 31,534,990 barrels and at the close of September, 1888, 23,654,206 barrels, making a reduction up to that time of 7,880,784 barrels. The reduction accomplished in October of this year amounts to 1,287,566 barrels with a total for the twelve months of 9,168,350 barrels. These figures show an excess of restricted production of at least 50 per cent. over that agreed upon. As a matter of fact, as is shown by the following table, the object was practically accomplished on the first of last May. The following table shows the amount of reduction each month:

	Barrels.
November, 1887	1,094,384
December	1,029,940
January, 1888	1,071,047
February	906,647
March	571,902
April	270,291
May	236,539
June	201,550
July	678,698
August	815,664
September	1,003,032
October	1,287,566
Total	9,168,350

The production of crude for the year 1887, as measured by the runs from the wells amounted to 20,209,983 barrels, a daily average of 55,315 barrels. For the twelve months ending Oct. 31, the production amounted to 14,482,282 barrels, and the daily average was 39,580 barrels. As compared with October, 1887, the shipments last month were heavier by 101,089 barrels and the runs less in amount by 552,446 barrels. On November 1, 1887, the crude market closed at 7¾c bid. The closing figure on October 31, 1888, was 85¼c, an advance of 12½c for the year, or about 17 per cent. The average price for November, 1887, was 73⅝c, as against 80⅝c for December, 91¾c in January, 1888, 89⅞c in February, 93¾c in March, 82⅜c in April, 86¾c in May, 73⅞c in June, 80⅝c in July, 80½c in August, 93½c in September and 89½c in October, making an average for the twelve months of 85⅝c and for the year to date 87c. The lowest point for the twelve months was 70¼c on November 9. Since January 1, 1888, the lowest point has been 71¾c on June 27, and the highest, $1, on March 6. From January 1, 1887, to October 24 same year, the reports of refined petroleum, reduced to a crude basis, amounted to 545,376,968 gallons, as against 484,887,318 gallons for the same period this year, a decrease of 60,489,650 gallons. The average price for refined oil for 1887 was 6¾c a gallon, and for 1888, 7 5-16c. November 1, 1887, the price was 6¾c and October 31, 1888, 7⅜c. During the year the refined market was as high as 7⅞c. An examination of the above flures shows conclusively that the strength of the statistical position does not add to the strength of the market. In March last, for instance, the reduction in gross stock was only 571,902 barrels, while in October it amounted to 1,287,566 barrels, or more than double that of March. Yet the average price for October was 4⅝c a barrel below that of March, and the market touched the dollar mark in March and was as low as 82c in October. These figures are interesting, but beyond showing that the statistical situation is greatly improved they are of apparently little value as they fail to have the slightest effect. The market price fluctuates at the will of the speculative operators, and as they frighten at the appearance of a gusher as do sheep at the appearance of a wolf, we may expect to see occasional and unwarranted drops in prices with slow recoveries, but the strong position must sooner or later assert itself. A combination of strong operators could cause the strong statistical situation to assert itself and make a winning deal. The transactions during the past week show a decrease from those of the previous week, the sales footing up 6,495,000 bbls against 7,987,000 bbls for the preceding week. The clearances of the local exchange amounted to 18,500,000 bbls, against 17,814,000 bbls during the preceding week. The total clearances reported for the other four exchanges amounted to 39,987,000 bbls against 40,467,000 bbls for the preceding week. The highest price of the week was reached on Saturday, when 86c was touched. The lowest point of the week was 82⅞c, and was touched on Thursday. The opening price last Wednesday was 84¾c, and the close this evening was at 85c, showing a gain as the result of the week's trading of ¼c, while the extreme range of fluctuations for the week was 3⅛c.

The news from the producing fields was not of a sensational character, but in lieu of interesting new developments a review of October's operations may be indulged in. In the Clarion field the Coast Oil Company will start operations on the Thomas lot and Stitt & Coast will start operations on the Early lot this week. Ritts & Co., on the James Boggs lot, started the drill Monday. Piper & Co.'s No. 2, on the Campbell farm, is doing about 300 bbls. per day. Cadwallader & Co.'s No. 2, on the Barber farm, is doing 225 bbls. per day. Daily production of this field is about 1,200 bbls.

A new well has just been completed and shot on the farm owned by the Continental Oil Refining Company, about two miles up the creek from Oil City. The well is on what was formerly the Clapp farm. A good sand was found and it is the opinion of practical men that it will be good for 25 bbls a day for a while. The strike created considerable interest, more for the novelty of the situation than for its importance. When shot the well caved in about 60 feet, which delayed pumping for a day or two. The flow after the shot was considerable, sufficient to indicate a good well. Johnson & McCamman have a rig up in the vicinity and are starting another.

The large amount of new operations during the month of October suggests a return to ante shut-down times. The increase was expected, but the result must have proved disappointing to those who invested heavily in drilling operations, as the average production has been very low. During October 229 wells were finished, 3,142 bbls new production, and 54 dry holes; against 132 wells, 2,512 bbls new production and 18 dry wells the month before. And 333 wells drilling and 187 rigs, against 226 drilling wells and 166 rigs in September, showing important gains in every department of field work. In finished wells there is an increase of 97; 833 bbls new production and 36 dry holes, being a gain of 200 per cent. in dry boles, and the largest dry hole list since '82. In new work there are 107 more drilling wells and 21 rigs, making a total increase of 128 wells and rigs over September's showing. The new work is not confined to any special district, but is general throughout the regions at large, and every district from Allegany, N. Y., to Turkeyfoot, W. Va., has its little spurt with the drill. The drilling for the most part is in old territory, and the wells when anything, are small. The greatest increase is in Venango and Butler counties, where the returns are lightest. In Bradford the work is confined chiefly to unexplored edges. Limestone is again coming to the front and Alton is beginning to receive some attention at the hands of the oil hunter. John McKeown is said to be harboring a "sleeping beauty," on the Bingham lands, near the head of Pigeon Run. The beauty was exploded some weeks ago, and for a time there was considerable demand for territory, which seems to have died a natural death; nothing came out of any land deals that may have taken place. Alleghany for the present is featureless. The only change from last month consists in a few more wells and rigs. In the Macksburg geld for the month of October six wells were completed. Three were dry. New production 110 bbls. Four wells are drilling, eight rigs up and two building.

Following is a tabulated summary of work completed, begun and in process during the past month, with comparisons:

WELLS COMPLETED SEPTEMBER, 1888.

Field.	Wells com.	Production.	Dry.
Bradford & Allegany	7	27	1
Middle Field	12	84	1
Venango & Clarion	58	755	1
Butler & Armstrong	32	1 095	6
Washington, Allegheny & Greene	23	551	9
Total Sept.	132	2,512	18

WELLS COMPLETED OCTOBER, 1888.

Field.	Wells com.	Production.	Dry.
Bradford & Allegany	8	25	3
Middle Field	45	355	7
Venango & Clarion	104	1,202	24
Butler & Armstrong	44	635	11
Washington, Allegheny & Greene	28	835	9
Total August	229	3,142	54

Increase in number of completed wells, 97.
Increase in new production, 633 bbls.
Average of October producing wells, 14½.
Average of September producing wells, 17.
Average of August producing wells, 19.
Average of July producing wells, 13.
Average of June producing wells, 43.
Average of May producing wells, 60.
Average of April producing wells, 9.
Average of March producing wells, 66.
Average of February producing wells, 13.
Average of January producing wells, 22.

RIGS UP AND DRILLING SEPTEMBER 30, 1888.

Field.	New Rigs.	Wells drill'g.	Total.
Bradford and Allegany	12	6	18
Middle field	13	46	59
Venango and Clarion	57	59	116
Butler and Armstrong	40	51	91
Washington and Greene	44	64	108
Total	166	226	392

RIGS UP AND DRILLING OCTGBER 31, 1888.

Field.	New Rigs.	Wells drill'g.	Total.
Bradford and Allegany	10	27	37
Middle field	28	55	83
Venango and Clarion	77	80	157
Butler and Armstrong	31	83	114
Washington and Greene	41	88	129
Total	187	333	520

Increase in rigs, 21.
Increase in drilling wells, 107.
Total increase, 128.
September showed an increase of 215.
August showed an increase of 8.
July showed a decrease of 3.
June showed an increase of 53.
May showed an increase of 31.
April showed a decrease of 9.
March showed a decrease of 11.
February showed an increase of 14.
January showed a decrease of 41.

Wednesday, Oct. 31.

The first sale this morning was made at 84¾c, which was a gain of ¼c over the close of last evening, but there were few buyers and efforts to sell brought the price down, dropping finally to 83⅞c before the decline was checked. A fair amount of oil changed hands as the figures neared 84c. Attempts to bring about a reaction were not successful, though the price advanced gradually and steadily under fair trading During the afternoon reports from the field were received which were regarded as bullish in their tenor and advance synopsis of the monthly field reports showing a smaller new production than had been looked for, the market stiffened and gave the bull operators the opportunity they had been looking for. The price was sent up with a rush until 85¼c was reached. During this time trading was lively but dropped off on reaching the highest point, and thereafter buyers could only be found when lowor offers were made. Toward the close the market weakened while the final figure was 85¼c. This made a gain for the day of ¼c under a range to quotations of 1⅞c. The sales footed up 1,460,000 bbls. From Butler came the report that the Phillips Behm No. 7 had made 200 bbls the first 19 hours and was 48 feet in the sand. The Coast Boggs No. 3 was in the sand but had no oil. Hoag's wildcat at Hilliard's was reported dry.

The half-hourly quotations were as follows:

A.M.		P.M.	
10:00	84⅞	12:30	84¼
10:30	84¼	1:00	84⅜
11:00	83⅞	1:30	84¼
11:30	84	2:00	84⅜
12:00	84¼	2:30	84
		3:00	83¾

The clearances were as follows: New York, 5,444,000; Oil City, 3,904,000; Pittsburg, 5,542,000; Bradford, 2,206,000; Philadelphia, 582,000; total clearances Oct. 31, 17,678,000 bbls.

Carrying rates were: New York, 35@40c; (renewals, 30c); Oil City, 25@30c; Pittsburg, 30@35c; Bradford, 30c.

Market Nov. 1, 1887—72⅝@73⅝c.

Thursday, Nov. 1.

The opening this morning was in strong contrast with that of yesterday morning, the first sale effected showing a shrinkage from last evening's close of ⅜c, while the best that could be done was to add one point, making 85c the highest price of the day. There was, however, no decided break as there were few sellers as the price receded. A large proportion of the business during the forenoon was of the scalping order, but in the afternoon there was some trading on orders, and as later reports came of heavy selling on the Pittsburg exchange there was a rush to unload, resulting in a break to 82⅝c under some excitement, while considerable oil changed hands. There followed nothing like a reaction, but as the bidding continued fair a few points were added and the close was at 83¾c, making a loss for the day of 1⅛c under a range of 2⅞c. The sales amounted to 1,416,000 bbls. In the Clarion field Kugler & Burlett have turned their well on the McCombs lot into a mystery. Signs can be seen all over the lease with the words "keep out" upon them, which have a good effect on the old cronies who are always around where they are not wanted. Piper No. 2, on the Campbell farm, is doing 300 bbls per day. Cadwallader's No. 1, on the Barber farm, has made an upward move. It is doing about 350 bbls a day. His No. 2, on the same farm, is doing 250 bbls a day. Piper & Co. will try and remedy their No. 2 on the Buhl farm with a 15-quart shot. Kefer & Co. will start the drill at their well on the Johnson lot to-morrow. Piper & Co. started the drill at their well on the Wilson & Corbet tract. The daily production of the field is about 1,250 bbls per day.

The half-hourly quotations were as follows:

A.M.		P.M.	
10.00	84⅞	12.30	84¼
10:30	84½	1:00	84½
11:00	84¼	1:30	84½
11:30	84⅜	2:00	84⅜
12:00	84¼	2:30	84
		3:00	83¾

The clearances were as follows: New York, 3,100,000; Oil City, 2,366,000; Pittsburg, 2,480,000; Bradford, 1,262,000; Philadelphia, 510,000; total, clearances Nov. 1, 9,718,000 bbls.

Carrying rates were: New York, 30@35c (renewals 30c); Oil City, 25@30c; Pittsburg, 25@30c; Bradford, 30c.

Market Nov. 2, 1887—71¾@73⅜c.

Friday, Nov. 2.

The weakness developed late yesterday extended to this morning when the first sale was made at 83½c, and from this point the price dropped quickly to the lowest of the day which was 82⅞c. There was a prompt reaction, however, and the tendency thenceforth appeared to be upward, although there was nothing in the way of news or developments to influence a change. During the noon hour a spurt was inaugurated, which resulted in sending the figures up to 84⅜c. There was fair trading for the remainder of the day, and although there were frequent fluctuations the figures did not again drop much below 84c, which was the closing quotation. This made a gain for the day of ⅞c, while the range to fluctuations was 1½c. The sales amounted to 1,697,000 bbls. At Mt. Morris the Fall No. 2 and Harris n No. 1 were each doing 50 bbls a day. The Olsen well shows for a small producer, being nearly dry. The Hatry, Wiley farm, wildcat, northeast of Bakerstown, was gasing strong but has no oil. Phillip's Geo. Behm No. 7, at Reibold, was doing 10 bbls per hour.

The half-hourly quotations were as follows:

A. M.		P. M.	
10:00	83⅛	12:30	83⅝
10:30	83⅛	1:00	.84
11:00	83¼	1:30	84⅛
11:30	83½	2:00	83⅝
12:00	83⅝	2:30	83¾
		3:00	84

The clearances were as follows: New York, 3,204,000; Oil City, 2,376,000; Pittsburg, 4,096,000; Bradford, 1,188,000; Philadelphia, 544,000; total clearances Nov. 2, 11,408,000 bbls.

Carrying rates were: New York, 30@35c (renewals 30c); Oil City, 25@30c; Pittsburg, 25@30c; Bradford, 30c.

Market Nov. 3, 1887—72½@74⅛c.

Saturday, Nov. 3.

There was a firmer tone this morning as it was believed there were many who would want to cover, and the first sale was made at 84¼c, a gain of ¼c over the close of last evening. This also remained the lowest price of the day. The bidding was fair, but the offerings were at higher figures than buyers cared to pay. The figures went steadily upward, however, and buyers finding there was no prospect of a reaction in their favor began to buy freely with the result of sending the price rapidly upward, the highest price reached being 86c. This checked operations, and thereafter the market tended downward and finally closed strong at 85c. This made a gain for the day of ¾c under a range to quotations of 1¾c. Trading was moderately active as a whole and resulted in sales of 1,006,000 bbls. There was nothing beyond the speculative efforts of the operators to affect the market, and no reports of interest were received from the other exchangas. The McCool No. 2 at Mt. Morris had the the tools fast on top of the pay streak. The Niely No. 1 on at Taylorstown was drilled into the sand and shows for about 80 bbls a day. The Herty well northeast of Bakerstown is dry. The Phillips Behm No. 7 was doing 10 bbls per hour.

The half-hourly quotations were as follows:

A. M.		A. M.	
10:00	84¼	11:00	84¾
10:30	84⅝	11:30	85⅝
		12:00	85

The clearances were as follows: New York, 3,662,000; Oil City, 1,906,000; Pittsburg, 3,330,000; Bradford, 1,064,000; Philadelphia, 657,000; total clearances Nov. 3, 10,619,000 bbls.

Carrying rates were: New York, 30@35c (renewals 30c); Oil City, 25@30c; Pittsburg, 25@30c; Bradford, 30c.

Market Nov. 4, 1887—72⅞@73¾c.

Monday, Nov. 5.

There was only moderate bidding at the opening, but the tone appeared firm and the first sale effected was at 85c. Moderate bidding caused a gradual advance to 85½c, which was the highest price touched during the day. There was no reaction but gradually the figures declined until noon when a decided weakness was developed and a raid then started brought the figures down to 84⅝c. Trading was light, the attention of the operators being apparently distracted by palitical matters which would be thrust forward every now and again and would always elicit rejoinders. This was the first and only day during the campaign that political bantering was indulged in to any extent and the only day when politics may be said to have interfered with business. Late in the session the market grew stronger, bringing the closing figure up to 85c. The range to fluctuations was 1½c. The sales footed up only 916,000 bbls. From Glade Run came the report that Phillips' Geo. Behm No. 7 was doing 15 bbls. per hour. The Stemm No. 5 was flowing at intervals in the 100-foot sand. The Ulrich No. 2 at Brush Creek is dry in the 100-foot sand. Given's well at Turkeyfoot Run is due to-night. The Curtis' wildcat was 5 bits in the sand, but had no oil.

The half-hourly quotations were as follows:

A M.		P.M.	
10:00	85	12.30	85
10:30	85½	1:00	84¾
11:00	85¼	1:30	84¾
11:30	85¼	2:00	84⅝
12:00	85¼	2:30	84¾
		3:00	85

The clearances were as follows: New York, 3,090,000; Oil City, 2,226,000; Pittsburg, 2,308,000; Bradford, 1,021,000; Philadelphia, 416,000; total clearances Nov. 5, 12,764,000 bbls.

Carrying rates were: New York, 30@35c (renewals 30c); Oil City, 30@35c; Pittsburg, 30@35c; Bradford, 25@30c.

Market Nov. 5, 1887—73⅝@73¾c.

The amount of daily sales and total for the week follow:

Date.	Bbls.
Oct. 31	1,460,000
Nov. 1	1,416,000
" 2	1,697,000
" 3	1,006,000
" 5	916,000
" 6	0,000,000
Total for the week	6,495,000

Following is given the opening, highest, lowest and closing figures for each day, in tabulated form for comparison:

	Opening.	Highest.	Lowest.	Closing.
Oct. 31	84¾	85¾	83¾	85¼
Nov. 1	.84⅞	85	82⅝	83¼
" 2	83⅛	84⅜	82¼	84
" 3	84¼	86	84¼	85
" 5	85	85½	84⅜	85
" 6		Holiday.		

The total clearances during the week at the several petroleum exchanges foot up as follows:

New York	18,500,000
Oil City	12,778,000
Pittsburg	17,756,000
Bradford	6,744,000
Philadelphia	2,709,000
	39,987,000
Total	58,487,000

The demand for refined in barrels for export has been irregular and somewhat tame, the lower price not creating the stimulus that was expected. The sales for the week footed up about 40,000 bbls, nearly all of which is for New York loading. Shippers regard the situation as uncertain and as the markets abroad are all lower they purchase only to meet current requirements. The course of the speculative market for certificates has been so erratic that shippers incline to the belief they will be to place orders at lower prices. They apparently ignore the fact that the home demand is now at its height and will continue active for the next two months, giving our refiners a good outlet for their production and that they will therefore not be influenced by any holding off policy on the part of shippers. That certificates will go below 80c, though possible is hardly to be expected under existing circumstances. The price of 70° Abel test has remained steady at 7¾c for all loadings. The principal foreign markets are lower, to-day's quotation by cable being: Antwerp, 19¾f; Bremen, 7.70m; London, 6¼@6¼d and Liverpool, 7⅜@5½d. Freight ratet show very little change, though charters have been effected at easier figures. The nominal rate to London is 3s 6d@3s 9 d, and to Continental ports 3s 6d@4s 3d as to port and vessel. Home trade lots have continued in fairly active request and are firm. We quote 9@9½c for State legal test; 8⅝@8½c for 110 test: 8¼@8⅜c for New York City 100° flash, and 10½@10¾c for 150° water white. Western lots are held firm at the same figures.

Cases for export have been in good demand, and sales of over 275,000 are reported. The price for plain tops has remained steady at 9⅝c. Freight rates are easier. The nominal rates for large vessels are: For Java, 37@38c; Japan, 37@38c; Calcutta, 33@34c; Bombay, 31@33c; Rangoon, 30@31c; Singapore, 33@35c; Hong Kong, 37@38c; and for Shanghae, 31@32c.

Crude in barrels for export continued to receive a fair amount of attention and sales of about 20,000 bbls are reported. Prices have been steady at 6½c for Bradford and 7½c for Parker. Cases for export continue neglected, and no sales are reported. Prices are steady at 8½@9½c.

Prime city naphtha remains steady at 7¾c. For export there has been no demand, and no sales are reported.

Western residuum is quoted at 1¾@2c f. o. b. Barrels are quoted at 5@5½c. No sales are reported for export.

Closing Quotations.

CRUDE.

National Transit Certificates	₱ bbl.	85 @ 85⅛
In bbls	₱ gal.	6½@ 7¼
In cases		8½@ 9¼
Residuum, bbls, for export 18@22°		5½@ 6
for domestic use f o b		1¾@ 2

REFINED, IN BARRELS.

Cargo lots, Abel test	₱ gal.	7¾@ —
Philadelphia loading		7¾@ —
Baltimore loading		7¾@ —
50 bbl lots, f. o. b. or on dock		8¾@8⅛
10 bbl lots, f. o. b. or on dock		8⅝@8⅞

HIGH TEST OILS—JOBBING LOTS.

110 fire test, S. W	₱ gal.	8¼@ —
120 fire test, S. W		8½@ —
130 fire test, S. W		9 @ —
State test		9½@ —
150 fire test, W.W		10¼@10¾
300 fire test		10½@11½
New York city, 100 flash		8¾

REFINED IN CASES, 110 FIRE TEST.

Two-five, low screw, 10,000 lots	9⅜@ —
5,000 to 10,000	9⅜@ 9⅝
1,000 to 5,000	9⅝@ 9¾
200 to 1,000	9⅞@10⅛
Under 200	10⅛@10⅜

NAPHTHA AND GASOLINE.

Naphtha, crude, cargo lots, 68@72 deg	—@ 7¼
Naphtha, crude, car lots, 68@72 deg	7¼@ 7¾
Naphtha, crude, 70 deg	8½@ 9⅛
Sweet, 62 deg	8½@ 9⅛
70 deg	9 @10
76 deg	9½@10⅛
Gasoline, 86 deg	13 @14
88 deg	15 @16
90 deg	18 @19

EMPTY PETROLEUM BARRELS.

Cargoes, spot	$1 02½@1 05
Domestics, on dock	1 02½@1 05
Subject to inspection	1 05 @ —

Petroleum Statistics.

RUNS—TOTAL AND AVERAGE.

	Day.	Total.	Av'ge
Mon. Oct. 29	58,550	1,096,074	37,795
Tues. " 30	68,454	1,164,528	38,784
Wed. " 31	70,518	1,235,040	39,840
Thurs. Nov. 1	43,357	43,357	43,357
Frid. " 2	44,598	87,955	43,977
Sat. Sun. 3 & 4			
January, 1888		1,048,641	33,827
February		1,175,102	40,529
March		1,193,133	38,488
April		1,200,977	40,032
May		1,301,015	41,968
June		1,289,616	42,987
July		1,260,486	40,660
August		1,285,558	41,469
September		1,181,482	39,383
October, 1887		1,751,676	56,506
November		1,125,390	37,513
December		1,223,648	39,472
Year, 1887		20,209,983	55,315

DELIVERIES—TOTAL AND AVERAGE.

	Day.	Total.	Av'ge
Mon. Oct. 29	114,048	2,302,000	79,379
Tues. " 30	121,235	2,423,235	80,774
Wed. " 31	82,418	2,505,653	80,827
Thurs. Nov. 1	118,987	118,987	118,987
Frid. " 2	90,322	209,309	104,654
Sat. Sun. 3&4			
January, 1888		2,225,975	71,806
February		2,115,803	72,938
March		1,980,963	63,902
April		1,830,522	61,017
May		1,676,794	54,090
June		1,677,330	55,911
July		1,933,873	62,383
August		2,105,343	67,914
September		2,210,876	73,696
October, 1887		2,383,707	76,894
November		2,403,307	80,777
December		2,419,617	78,052
Year, 1887		25,519,175	69,916

CHARTERS—TOTAL AND AVERAGE.

	Day.	Total.	Av'ge.
Mon. Oct. 29	44,642	1,384,325	47,735
Tues. " 30	79,285	1,463,610	48,787
Wed. " 31	42,063	1,505,673	48,570
Thurs. Nov. 1			
Frid. " 2	44,682	44,682	22,341
Sat. Sun. 3&4	20,516	65,198	16,300
January, 1888		914,199	29,490
February		1,199,169	41,351
March		908,923	32,223
April		973,208	32,440
May		1,257 607	40,892
June		1,219,188	40,640
July		1,339,147	42,908
August		1,221,935	39,417
September		1,487,452	49,582
October, 1887		1,411,578	45,542
November		1,120,709	37,357
December		1,011,903	32,655
Year, 1887		15,304,735	41,657

CHARTERS FOR THE WEEK.

The total charters for refined in barrels and cases, crude in barrels and cases, naphtha, &c., during the week ending November 6, were as follows:

Refined, bbls	43,800
Refined, cs	288,000
Crude, bbls	21,500
Crude, cs	
Naphtha, bbls	
Residuum, bbls	
Lubricating	
Total, crude equivalent	186,546

CLEARANCES FOR THE WEEK.

During the week ending Nov. 5, the clearances of petroleum, in gallons, from the port of New York were as follows:

Refined	2,706,847
Crude	447,987
Naphtha	250
Residuum	
Total	3,155,084

EXPORT STATISTICS.

The following table shows the total exports from the port of New York and from the United States, reduced to crude equivalent, in gallons, for the week ending October 27; also, the total shipments to date, with comparisons with 1887:

Exports from New York for week ending Oct. 27	10,663,932
Total exports from New York from Jan. 1, 1888	366,050,941
Same period last year	399,880,936
Decrease	33,829,995
Exports from U. S. for week ending Oct. 27	17,308,657
Total exports from U. S. from Jan. 1, 1888	502,095,795
Same period last year	554,299,695
Decrease	52,203 720

TOTAL EXPORTS FROM DIFFERENT PORTS.

	1888.	1887.
New York	366,050,941	399,880,936
Philadelphia	127,731,733	146,409,984

Exports of Petroleum from New York

REFINED.

COUNTRIES.	Week Ending Nov. 5. Gals.	Jan. 1 to Oct. 29, 1888. Gals.	Jan. 1 to Oct. 31, 1887. Gals.
Africa, Liberia		25,653	30,370
Sierre Leone		50	
South Africa	92,680	1,077,285	1,453,550
Zanzibar		657,500	300,000
Algiers		1,276,330	1,203,790
Arabia		190,000	1,150,000
Argentine Republic	40,080	2,895,175	2,695,850
Australia	377,487	6,996,194	4,224,305
Austria		138,033	276,700
Belgium	392,098	23,915,703	30,518,112
Brazil	103,174	7,451,797	5,322,344
British East Indies, Aden		445,000	270,000
Burmah		231,851	2,420,570
India		19,487,970	19,929,820
Penang		630,000	607,600
Singapore		1,727,558	1,676,760
British Guiana		394,806	466,071
British West Indies, Antigua		33,850	41,020
Barbadoes		274,056	205,970
Basse Terre		41,870	134,154
Bermuda	6,118	107,284	89,656
Domenica		9,820	34,362
Jamaica	5,000	501,186	529,681
Montserrat		4,450	3,200
Nassau	4,320	47,360	37,805
St. Lucia		26,727	16,402
St. Vincent		19 945	25,745
Trinidad		222,410	329,781
All others		78,408	17.476
Canary Islands		132,350	136,840
Central America, Belize		59,856	60,982
Costa Rica		69,012	74,883
Guatamala		49,016	83,816
Honduras		25,128	26,480
Nicaraugua	1,000	131,950	206,832
San Salvador		40,960	73,442
Chili		2,426,750	1,583,165
China, Cochin		2,873,750	1,930,546
All other		11,418,269	667,468
Cuba	750	5 45,982	684,815
Danish West Indies		42,629	43,513
Denmark		3,444,458	3,320,327
Dutch East Indies, Java	265,590	80,357	15,710,550
Macassar		73,140	256,000
Sumatra		325,000	330,000
Dutch West Indies		91,583	81,255
Dutch Guiana		109,581	20,400
Ecuador		93,290	74,670
England	75,979	37,251,564	40,076,423
Egypt		498,150	3,986,550
France	340,244	1,437,777	2,889,253
French Guiana		24,650	33,770
French West Indies	8,000	335,377	239,455
Germany	387,600	80,713,003	67,703,830
Gibraltar	89,000	383,700	637,419
Greece			150,000
Hawaiian Islands		100,000	164,640
Hayti	6,450	315,840	171,462
Ireland	158,123	3,447,458	4,430,222
Italy		872,697	1,345,760
Japan		8,360,460	8,546,110
Mexico	1,450	1,474,383	767,594
Malta		120,880	473,000
Mauritius Island		14,750	
Netherlands		22,111,522	29,426,122
North America, New Brunswick	45,500	731,184	656,813
New Foundland		272,899	143,464
Nova Scotia		394,344	317,556
Prince Ed. Island		240,882	161,250
Norway and Sweden		5,840,552	6,442,850
Peru	500	211,849	99,098
Porto Rico	30,142	508,845	405,700
Phillippine Islands		317,000	222,640
Portugal		710,648	759,623
Reunion		74,500	72,030
Russia		145,829	95,874
Scotland			
Siam	192,140	1,067,770	530,680
Spain		367,900	979,500
Turkey		435,764	2,399,894
U. S. of Col	2,330	560,155	465,050
Uruguay	148,250	1,933,620	2,659,971
Venezuela		716,118	823,127
Wales		143,766	122,088
Total	2,638,075	276,503,189	277,687,788

CRUDE.

COUNTRIES.	Week Ending Nov. 5. Gals.	Jan. 1 to Oct. 29, 1888. Gals.	Jan. 1 to Oct. 31, 1887. Gals.
Australia			
Austria			
Belgium			
Brazil			
British Guiana			
British West Indies		248	
Chili			10,000
Central America		2,167	499
Cuba		2,886,547	4,213,108
Danish West Indies			
Dutch West Indies			
England			213,217
France	279,994	21,845,300	16,684,063
Germany		1,230,503	1,084,659
Hawaiian Islands			2,525
Mexico		991,510	843,899
British North America			
Norway and Sweden		187,230	
Spain	167,806	7,548,282	6,187,529
Uruguay			
Total	447,987	34,503,788	29,279,499

NAPHTHA.

COUNTRIES.	Week Ending Nov. 5. Gals.	Jan. 1 to Oct. 29, 1888. Gals.	Jan. 1 to Oct. 31, 1887. Gals.
Africa			96
Algiers			5,000
Argentine Republic		1,625	665
Australia		48	
Belgium		223,244	184,500
Brazil		14,630	138,981
British West Indies		152	198
Central America			
Chili		237	
Cuba			
Denmark			
England		2,872,347	3,426,250
France		2,484,222	2,011,712
Germany		525,360	
Hayti			10
Ireland		7,659	5,118
Mexico			
British North America	250	2,150	3,050
Norway and Sweden		348,873	452,761
Portugal		79,700	3,760
Russia			
Turkey			
Uruguay			
Venezuela			19,000
Total	25	6,575,247	6,251,101

Baltimore	4,541,647	5,096,535
Boston	2,037,735	2,915,240
Perth Amboy	1,714,239	.....
San Francisco	19,680	.....
Grand total	502,095,975	554,299,695

CAPACITY OF VESSELS LOADING.

The following table gives the capacity of the vessels loading petroleum at the ports of New York, Philadelphia, Baltimore and Boston on November 5:

	NEW YORK.		PHILADELPHIA.	
	Bbls.	Cases.	Bbls.	Cases.
Refined	298,200	682,000	65,200	88,000
Crude	75,100	9,000	61,800	...
Naphtha	23,500	....	7,000	....
Total	396,800	691,000	134,000	88,000

	BALTIMORE.		BOSTON.	
	Bbls.	Cases.	Bbls.	Cases.
Refined	6,000	....	3,400	.
Crude	....	....		.
Naphtha	....	....	.	.
Total	6,000	....	3,400	...

Foreign Statistics.

REFINED QUOTATIONS.

	Antwerp.	Bremen.	London.
Wed. Oct. 31.	19¼@—	7.75	6⅝@6¾
Thur. Nov. 1.	19¼@—	7.70	6⅛@6⅝
Fri. " 2.	19⅛@19¼	7.70	6⅛@6⅝
Sat. " 3.	19⅛@—	7.70	6⅛@6⅝
Mon. " 5.	19⅜@—	7.70	6¼@6⅝
Tues. " 6.	——	——	——

STOCKS, RECEIPTS AND SHIPMENTS.

The statistical situation at the seven principal continental ports on October 20, was:

	1888.	1887.
Stock, Oct. 20	475,919	538,540
Afloat "	396,646	384,789
Loading "	218,300	221,100
Total	1,090,865	1,144,429
Receipts Oct. 13 to Oct. 20	50,651	71,870
Rc'ts July 1, '88, to Oct 20, '88.	1,408,870	1,446,400
Shipments Oct. 13 to Oct. 20	128,993	111,067
Shp's July 1,'88, to Oct. 20, '88.	1,302,741	1,402,586

At London the statistical situation on the same date was made up as follows:

	1888.	1887.
Stock, Oct. 20	146,406	139,066
Afloat "	64,878	51,407
Loading "	24,000	50,800
Total	235,284	241,273
Receipts Oct. 13 to Oct. 20	14,500	38,111
Rec's July 1,'88, to Oct. 20, '88.	201,826	261,066
Shipments Oct. 13 to Oct. 20	22,615	20,441
Shp'ts July 1,'88, to Oct. 20, '88.	193,413	223,087

Petroleum Charters.

Following is a list of vessels chartered and loading or to load petroleum at New York, Philadelphia, Baltimore and Boston:

NEW YORK. Bbls. Refd.

July 24
Am shp Wildwood, Japan, p t ..cs 60,000
It bk Plinio, Java, p t cs 45,000

July 26
Am sh Chas. Dennis, Calcutta, pt cs 60,000

July 28
Aus bk Leonora, China sea, p t cs 55,000
Br sh Cumberland, U K or Cont, p t 9,500

Aug 3
Br bk Scotland, Cont, pt 9,000

Aug 7
Br bk John Trahey, Antwerp, Rotterdam or Amsterdam, 3s 7½d 7,000

Aug 10
It bk GemmaC, Java, p t cs 28,000

Aug 20
Nor bk Alsen, Baltic, 3s 10½d 3,000

Aug 23
Ger bk Duppel, Baltic, p t 3,500

Aug 27
It bk Rosa Madre, French port, p t ...cde 5,500

Aug 30
Br bk Lady Lisgar, Bristol or London, 3s 3d, or Liverpool, 3s 6d 7,000

Sept. 4.
Nor bk Java, Baltic, 4s 4½d 3,000
Br sh Prince Rudolph, Hamburg, 3s 9d.. 8,500

Sept. 5.
Br bk Anglesea, Liverpool or Bristol, 3s 10d 6,500

Sept 7
Nor bk Beta, U K or Cont, 4s 6d cde 5,000

Sept 9
Nor bk Simeon, Java, 30@31c cs 28,000
Am sh Lucy A Nickels, Japan, p t cs 46,000
It bk Enrichetto Accame, Penang or Singapore, 34@35c cs 35,000

Sept 13
Nor bk Orvilla, Dieppe, pt cde 6,500

Sept 14
Dtch bk Carmdia, Continent, pt 3,600

Sept 21
Am sh Nancy Pendleton, Japan, 37c ...cs 50,000

Sept 27
It bk Chiarcana, Cette, 4s 10½d cde 4,000
Nor sh Kommander Svend Foyn, U K or Cont, pt 4,400
Nor sh B D Metcalf, U K or Cont, pt 7,800
Nor bk K Langaard, U K or Cont, pt 4,000

Sept 28
Br sh Sapphire, U K or Cont, p t 8,500
Br str Salerno, Rouen, 4s 9d cde 6,000
Rr sh Record, U K or Cont, p t 10,000
Ger bk Johannes, Continent, p t 6,80

Oct 1
Nor bk Grundloven, Baltic, p t 4,800

Oct 2
Am sch Anna, Buenos Ayres, 27c ...cs 15,000

Oct 3
Nor bk Marie, U K, p t 4,000
Br bk J Throop, London, 4s ...nap 5,000 & 1,300
Am bk Cardenas, Bristol Channel, p t 2,400
Nor bk Artemis, U K or Cont, p t 3,500

Oct 6
Am sh Frank Pendleton, Japan, p t ...cs 50,000

Oct 9
Am sh Vigilant, Hong Kong, 37c ...cs 60,000
Br str Gleneagles, Japan, pt cs 50,000

Oct 10
Nor bk Askøy, U K, 4s 3d 3,000

Oct 12
Br sh Stamboul, Havre, 4s 7½d cde 7,500

Oct 13
Swed bk Adelaide, Swedish port, pt 3,000

Oct 15
Nor bk Omen, U K, pt 3,000
Br sh Brabant, Antwerp, pt tanks 15,000
Br sh Gov Wilmot, London, pt 10,500
Br sh Servia, U K or Cont, pt 8,000
Br bk D H Morris, U K or Cont, pt 7,200
Br sh Lizzie Burrill, Rouen, 5s cde 7,500
Am sh Titan, Hong Kong, 27c ...cs 43,000

Oct 16
Br sh Landsdowne, Liverpool or London p t 10,000
Am sh Luzon, Hong Kong, 37c cs 48,000
Br sh McDougell, Dutch port, 4s 7,000

Oct 17
Br sh Bedford, Continent, p t 7,500
Ger bk Marie, Siedenberg, Cont p t 8,000
Nor sh Tagal, Ger Baltic, 4s 6,000
Nor sh Signal, U K or Cont, 4s 1½d 6,000
Br sh Dunrobin, London, 3s 9d 9,000

Oct 18
Ger sh Hugo, Continent, p t 9,800
Br sh Ravola, London, 3s 9d 10,500
Ger bk Bremen, Ger Baltic, p t 5,800
Dtch bk Jan Melchers, U K or Cont, p t.. 9,000
Br bk Nellie T Guest, Havre, 4s 7½d..cde 5,800

Oct 19.
Am bk Colorado, Cette, 4s 4½d cde 6,000
Ger sh Theo Fisher, Bremen or London, pt 11,800
Nor bk Hermon, Continent, p t 6,300
Nor bk Rock City, Continent, p t cde 5,000
Nor bk Ringhorne, U K or Cont, p t 6,000
Ger sh Annie, U K or Cont, p t 8,000
Nor bk P M Peterson, U K or Cont, p t.. 7,000
Br bk Harold, Dunkirk, 4s 9d.. cde 6,000
Sp bk Talolia, Marseilles, p t cs 30,000

Oct 20
Br ship Ellerslie, Liverpool, p t. 9,000
Ger ship Oberon, Continent, p t 8,300
Br ship Forest King, U K or Cont, p t 10,000
Ger bk Blucher, Continent, p t 7,600
Br bk Salacia, Dunkirk, 4s 9d 3,500
Ger bk Fritz von der Lanken, Ger Baltic, 5s 3d 2,000
Swed bk Jolani, Dublin, 4s 5,000

Oct 22
Br sh Alex Yeates, Hong Kong, 37c cs 60,000
Nor bk Carsten Boe, Ger Baltic, 4s 6d 5,000
Br bk Chignecto, Continent, p t 6,000
Ger bk Wilhelm Burkedal, Baltic, p t 5,000
Ger bk Ajax, Hamburg, p t 5,000
Nor bk Cleveland, U K or Cont, p t 8,200
Am bk Haydn Brown, Saigon, p t cs 25,000
Am sh Eclipse, Japan, p t cs 60,000
Am bg John H Crandon, U K, 4s 3d 2,700
Br bk Hannah Blanchard, U K or Cont, pt 6,200

Oct 23
Nor bk Amerika, Christiana, pt 3,000
Br shp Vanlos, Havre, 4s 6d cde 10,000
Br shp Pythomene, Calcutta, pt cs 75,000
Br shp Gilcreux, Calcutta, pt cs 90,000
Br bk Sophia Joakim, Chittagong, pt..cs 35,000

Oct 24
Br bk Assyria, Calcutta, pt. cs 40,000
Br shp Hartfield, Java, pt cs 30,000

Oct 25
Br shp Rossignal, London or Liverpool, pt 9,000
Br shp Crusader, London or Liverpool, pt 7,000
Dtch shp Emanuel, Continent, pt 9,000
It bk Maccabeo, Java, pt cs 30,000
Br shp Main, Calcutta, pt cs 60,000

Oct 26
Dtch bk Martina Johanna, U Kor Cont, pt 5,000

Oct 27
Nor shp Signal, Ghent, pt 6,000
Am brg Blue Bird, Sables d'Olonne, 5s nap 2,400
Br bk Paramatta, U K or Cont, pt 6,000
Nor bk Amaranth, U K or Cont, pt 2,500
Am bk ———, Rio Janeiro, 28c cs 20,000

Oct 29
Br bk Antwerp, pt 6,000
Br shp Sultan, Calcutta, 33c cs 60,000
Br bk Egeria, Dunkirk, 4s 9d cde 5,500
Ger shp Georg, Continent, pt 6,000

Oct 30
Dtch bk Cornelia, Dutch port, p t 5,000
Nor bk Beta, U K or Cont, p t 5,800
Nor bk ——, U K or Cont, p t 6,500
Am sh Evporter, Calcutta, p t cs 47,000
Am bk Martha Davis, Java, p t cs 28,000
Am sh Isaac S Skolfield, Calcutta, pt..cs 50,000
Ger bk Wilhelm Anton, Java, p t cs 35,000
Dan bk Anna, Montevideo, p t cs 11,000

Oct 31
Am sh El Capitan, Calcutta, pt cs 50,000
Nor bk Venus, U K or Cont, pt 6,000
Nor bk Alexandra, Hull or Newcastle, 4s 6d & 4s 9d nap & 3,500
Am sh Marianne Nottebohn, Dutch port, pt 7,000

Nov 2
Br bk Wm Cochrane, Antwerp, pt 7,000
Br bk Crown Jewel, Cardiff, 4s 4,000
Ger bg Ceres, Oporto, pt 2,000
Ger bk Orpheus, Cont, pt 6,000
Am bk Pilgrim, Manila, 47c cs 32,00

PHILADELPHIA.

Aug 28
It bk Armonia, Java, p t cs 30,000
Nor bk Ariadne, Baltic, p t 4,500

Sept 7
Br bk Aspatagon, Dunkirk, 4s 3d cde 5,800

Sept 22
Nor sh Ferdinand, U K or Cont, p t 8,500

Sept 29
It bk Selina Stanford, Cagliari, fo, 27c, cs 13,000

Oct 5
Aus bk Alice, Medit or Adriatic, p t ...cs 25,000

Oct 13
Aus bk Platina P, Fiume, pt. cs cde 15,000
& cde 2,000

Oct 16
Nor bk Christine Edela, St Loubes, pt cde 5,000
Br shp Norwhal, Japan. 40c cs 50,000
Am bk Sarah A Staples, French port 4s 10½d cde 2,500

Oct 18
It bk Ciampia Emelia, Italy, 25c cs 30,000
Ger ship Union, Continent, pt 7,000
Nor ship Telefon, U K, pt 7,000

Oct 19
Am bk Mary T Kimball, Medit, pt 18,000
Ger bk Frieda Grampp, Baltic, pt 3,000

Oct 20
Ger shp Castine, U K or Cont, pt 7,000
Br bk Ruth Palmer, Dunkirk, pt. ...cde 6,500
Br bk Linewood, Batavia, f o, pt cs 42,000
Ger bk Graulf, Baltic, pt 3,000

Oct 22
Nor bk Dronning Louise, Rouen, pt. cde 3,000
Nor bk Nordsjernen, Continent, pt. 3,000
Am shp The Lord Warden, Marseilles, pt cde 8,000
Br bk Astracana, Havre, pt cde 7,500
Ger shp Savannah, Continent, pt 8,000

Oct 24.
Nor bk Onward, French port, p t cde 3,000

Oct 25.
It bk Oliva, Speciosa, Medit, p t cs 25,000
It bk Antoinetta, Accame, Medit, p t..cs 18,000
It bk Luigi, Accame, Medit, p t cs 30,000
It bk Castello Dragone, Medit, p t cs 25,000
It bk Draguetta, Medit, p t cs 25,000
It bk Guiacomo Martola, Medit, p t cs 18,000
It bk Innocenta, Medit, p t cs 25,000
It bk Oreb, Medit, p t cs 28,000
It bk Natale Gallina, Medit, p t cs 25,000

Oct 26.
Swed bk Excelsior, St. Loubes, 4s 10½d cde 2,500

Oct 30
Br bk Assane, Rouen, 5s cde 7,000

Nov 2
It bk San Francisco, Cette or Marseilles, 4s 3d cde 4,800
Br ship Munster, Havre, 4s 6d cde 9,000

Nov 3
Nor bk Einar, Nordenhamm, pt cde 5,500
Nor bk Hanonal, Continent, pt 1,800
It bk Armonia, Java, pt cs 35,000

BALTIMORE

Oct 16
Ger shp Agra, Hamburg, 4s 3d 6,500

Oct. 19
Br bk Chas E Lefurgey, U K or Cont, p t 6,200

BOSTON

Oct 25.
Nor bk Hardi, Baltic, 4s 6d 2,000

Clearances of Petroleum.

Following are the clearances of petroleum from the ports of New York, Philadelphia, Baltimore, Boston and San Francisco on the dates named. Refined, unless otherwise specified:—

NEW YORK.

Oct 29
3,400 cs, per Aus bk Balkan, to Buenos Ayres, should be 3,600 cs

Oct. 30
Am str Santiago, St Jago, 75 cs
Am str, Santiago, Nassau, 54 cs
Am bg Reindeer, St Pierre, 500 cs
Am sch Wm Beazley, Macons, 31 bbls, 148 cs
Br sh Minister of Marine, Melbourne, 3,500 cs
Br bk Nimbus, Antwerp, 7,610 bbls
Br str Harold, San Juan, 106 cs
Br str Harold, Mayaguez, 12 cs
It bk Michele, Alicante, 1,500 bbls, 9,000 cs cde
Nor bk Ornen, Limerick, 3,090 bbls
Nor bk Prima Donna, Bordeaux, 5,478 bbls cde
Nor bk A Tellesren, Java, 26,559 cs
Span bg Almogavar, Gibraltar, 8,900 cs
Span bk Tafalla, Pt de Bouc, 6,658 bbls

Oct 31
Am sh Southern Cross, Sydney, 11,050 cs
Am str Edith Godden, Montego Bay, 500 cs
Am bg Manson, San Juan, 125 cs
Am sch A E Rickerson, Pt au Prince, 50 cs
Am bg Manson, St Johns, P R 550 cs
Nor bk Simeon, Auckland, 11,732 cs
Nor str B D Metcalf, Hamburg, 7,600 bbls

Nov 1
Am str Saratoga, Progresso, 25 cs
Br str Trinidad, Bermuda, 97 bbls, 62 cs
Br str Trinidad, Hamilton, 8 pgs, 2 cs, 1 bbl
Br str L Hill, London, 1,500 bbls
Bel str Noordland, Antwerp, 50 bbls

Nov 2
Am bk H S Jackson, Mossel Bay, 2,250 cs
Am bk H S Jackson, East London, 2,700 cs
Am str City of Para, Panama, 200 cs
Am str City of Para, Buenaventura, 20 cs
Am bg T Turall, Pta Pitre, 300 cs
Am sch J L Mott, San Bias, 120 cs
Br str Chas Morand, Arecibo, 1,000 cs
Br sch Nellie Bruce, St John N B, 905 bbls & 5 bbls nap
Br sch Mary Culmer, Nassau, 378 cs
Br bk V L Stafford, Pt Natal, 4,316 cs
Ger bk M Hennings, Lyttleton, 7120, cs
Nor bk Hassell, Bangkok, 19,214 cs
Port bk Agnes, Montevideo, 14,825 cs

Nov 3
Am str Harold, Mayaguez, 210 cs
Am str Harold, San Juan, 50 cs
Br str Cearense, Ceara, 242 cs
Br str Cearense, Para, 2,055 cs
Br str Cearense, Pernambuco, 8,000 cs
Br str Andes, Aux Cayes, 60 cs
Br str Andes, Pt au Prince, 125 cs
Br str Andes, Jeremie, 106 cs
Br str Andes, Petit Goave, 25 cs
Br str Andes, Jacmel, 11 cs
Dut str Prins William I, Campana, 408 cs

BOSTON

Oct 29
Sch Morien, Cowbay, 30 bbls

Nov 1
Sch Diamand, St Pierre, 40 bbls, 3 hf bbls & 10 cs

SAN FRANCISCO

Oct 18
A C Hasseltine, Juluit, 42 cs

Oct 20
Empire, Nanaimo, 50 cs

PHILADELPHIA

Oct 27
Br bk Sodium, Dieppe, 3,146 bbls cde

Oct 30
Bk Aneroid, Antwerp, 5,978 bbls
Am bg Mary P Kimball, Gibraltar, f o, 16,211 cs
Br bk Flourine, Dieppe, 2,719 bbls cde

Oct 31
Bg Ubaldiena, Demerara, 10,000 gls
Ger sh Union, Bremen, 7,482 bbls
Br bk Ivigtut, Copenhagen, 1,988 bbls

Nov 1
Ger bk Patria, Oporto, 1,839 bbls, 1,912 cs]

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Chemicals 53 to 5
Dyes
PRICES CURRENT:—
Paints 49
Oils 40
Naval Stores 49
Drugs 49 & 50
Chemicals 50
Dyes 50

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IMPORTS, EXPORTS, DOMESTIC RECEIPTS, Etc.

IMPORTS ENTERED AT NEW YORK FOR CONSUMPTION.

ACID—3 cs, L Englehorn, Trave, Bremen
18 cks, 1,800lb, Pickhardt & K, Rotterdam, R'dam
BORACIC—20 cks in our last came to J Marsching & Co, and 15 cks to H J Baker & Bro
CARB—40 dms, J P Barnett, C of Berlin, Liverpool
GALLIC—3 cs, 500lb, A Klipstein, Waesland, Antwerp
PICRIC—15 cs, 1,120lb, R Holliday's Sons, C of Rome, L'pool
ALIZARINE—2 cks, 440lb, J J Keller & Co, La Champagne, H're
54 pgs, 19,712lb, A Klipstein, Waesland, Antwerp
250 cks, Pickhardt & K, Rotterdam, R'dam
20 bbls, 8,000lb, W J Matheson & Co, Wisconsin, L'pool
ALUM—4 cks, Fisk, Clarke & F, La Bretagne, Havre
ALBUMEN—3 cks, J C Bloomfield & Co, Wisconsin, L'pool
ALOES—173 pgs, 17,052lb, D A DeLima & Co, Valencia, Curacao
AMBERG EARTH—23 cks, C F Zentgraf, Rotterdam, R'dam
AMMONIA CARB—1 cs, E Fougera & Co, Erin, London
30 cks, 5 kgs, Crandall & G, Wisconsin, Liverpool
8 cks. 4,597lb, Schulze-Berge & K, Wisconsin, L'pool
MURI—15 cks, J L & D S Riker, Italy, Liverpool
50 cks, 45,937lb, C De P Field, L City, Bristol
SAL—20 cks, 21,557lb, C De P Field, L City, Bristol
ANNATTO SEED—5 bgs, 854lb, A S Lascelles & Co, Athos, K'ton
1 bbl, 167lb, A S Lascelles & Co, Alene, Kingston
ANILINE COLORS—7 cs, J Campbell & Co, Arizona, L'pool
18 cks, 3,550lb, W J Matheson & Co, Wieland, Hamburg
8 cks, Davis & Walton, Lahn, Bremen
33 cs, 18 cks, 5 bbls, E Schlbach & Co, Waesland, Ant'p
2 cs, Pickhardt & K, Waesland, Antwerp
3 bbls, J A & W Bird & Co, Waesland, Antwerp
25 cks, 2 cs, 5,684lb, A Klipstein, Waesland, Antwerp
10 cs, 1,100lb, J J Keller & Co, Waesland, Antwerp
10 cks, 3,000lb, R Holliday's Sons, C of Rome, L'pool
35 cks, Pickhardt & K, Rotterdam, Rotterdam
8 cs, 765lb, Sykes & Street, La Bretagne, Havre
10 cks, J Bloomfield & Co, Wisconsin, Liverpool
2 cs, Neumark & G, Etruria, Liverpool
60 pgs, 6,550lb, W J Matheson & Co, California, H'burg
23 pgs, 2,750lb, W J Matheson & Co, Lahn, Bremen
26 pgs, W J Matheson & Co, Aller, Bremen
30 pgs, 3,800lb, Lutz & M, Rhaetia, Hamburg
OIL—30 dms, 25,634lb, Roessler & H, Waesland, Antwerp
SALTS—24 cks, 6,832lb, W J Matheson & Co, Canada, L'don
ARGOLS—18 cks, 90 bgs, C Pfizer & Co, Italia, Leghorn
98 cks, 98,430lb, N Y Tartar Co, Italia, Leghorn
66 bgs, 13,150lb, Innis & Co, C Lafite, Bordeaux
49 bgs, Loeb & Bro, Wisconsin, Liverpool
ARCHIL—10 cks, 4,231lb, Sykes & Street, La Bretagne, Havre
20 cks, Neumark & G, Sorrento, Hamburg
ARSENIC—267 bbls, 112,756lb, Sondheim, A & Co, L City, Swansea
285 cks, J W Binney, L City, Swansea
ASPHALTUM—100 bbls, 22,954lb, Suzarte & W, Prinz William I, Curacao
BALSAM TOLU—33 cs, 4,800lb, J A Pauli & Co, Andes, Savanilla
BARK—10 bls, A Stein & Co, Erin, London
2 bls 250lb, Pim, Forwood & Co, Claribel, Colon
BARYTES SULPH—160 tons, Hammill & G, R Water, L'pool
CARB—58 tons, G P Putnam, L Lansdowne, Newcastle
BAY LEAVES—75 bls, Dodge & Olcott, Muriel, Roseau
BINITRO TOLUOL—6 cks, 2,189 lb, Roessler & H, Waesland, Antwerp
BISMUTH—8 cs, 2,284lb, C Pfizer & Co, Britannic, L'pool
BLEACH—44 cks, Sutherland, I & Co, R Water, L'pool
47 cks, 63,840lb, Perkins, G & Co, R Water, L'pool
BRISTLES—11 cs, 897lb, H Kroehl, Erin, London
12 cs, 1,512lb, G Rosenfeld, Erin, London
3 pgs. 1,544lb, Lewisohn Bros, Lahn, Bremen
BRONZE POWDER—1 cs, A Pfingsthorn, Trave, Bremen
13 cs, 6,500lb, J Sachs, Lahn, Bremen
4 cs, G Meier & Co, Werra, Bremen
1 cs, L Wallau, Werra, Bremen
3 cs, A B Ansbacher & Co, Werra, Bremen
6 cs, Abegg, D & Co, Werra, Bremen
6 cs, F J Emmerich & Son, Werra, Bremen
6 cs, 990lb, E Ehrmann, Werra, Bremen
BUTTONLAC—25 cs, 6,044lb, Rogers & Pyatt, Erin, London
80 cks. G B Morewood & Co, L Monarch, London
BARIUM CHLO—51 cks, Gabriel & S, Waesland, Antwerp
CALCIUM CHLO—20 dms, Heller & Merz, Italy, Liverpool
CALOMEL—3 cs, 112lb, Lazell, D & Co, Lepanto, London
10 cs, Schoellkopf, H & M, Etruria, Liverpool
CARAMEL—6 cks, W Rudkin's Sons, Trave, Bremen
CARAWAY SEED—100 bls, 11,000lb, Brandt & Kientzier, Rotterdam, Amsterdam
9 bls, 1,188lb, Rosenstein Bros, Colorado, Hull
CACAO BUTTER—28 bls, 4,744lb, H Martin, Rotterdam, am
CASTOR BEANS—279 bgs, Mason, C & Co, Allianca, St Thomas
486 bgs, 48,665lb, M B Snevely, Erin, London
CASSIA—542 bls. C Von Pustau & Co, A Yeats, Hong Kong
1,000 bls, Smith & S, A Yeats, Hong Kong
CELERY SEED—1 bl, Fischer & E, C of Chicago, L'pool
CHAMOIS—2 cs, T L Lutkins, Wisconsin, L'pool
2 cs, A Issacs & Co, Arizona, Liverpool
6 cs, A Isaacs & Co, Etruria, Liverpool
2 cs, J S Rockwell & Co, Etruria, Liverpool
4 cs, T L Lutkins, La Bretagne, Havre
4 cs, T L Lutkins, Germanic, Liverpool
CHAMOMILES—25 bls, 2,756lb, W H Schieffelin & Co, Waesland, Antwerp
CEMENT—900 cks, E Thiele, Waesland, Antwerp
580 cks, E Thiele, Wieland, Hamburg
580 cks, R Trompetter, Recovery, Ghent
750 cks, Marcial & Co. Lepanto, London
600 bbls, Batjer & M, Wieland, Hamburg
1,700 cks Batjer & M, Georg, Hamburg
500 cks, Sinclair & B, Lepanto, London
500 cks, J Brand, L Monarch, London
3,500 cks, H Fleming, Dunrobin, London
1,500 cks, J Brand, Dunrobin, London
500 cks, G T Noe, Dunrobin, London
6,000 cks, Sinclair & B, Larnica, London
1,000 cks, J B Suchlich & Dunrobin, London
1,140 cks, Sinclair & B, Dunrobin, London
2,000 cks, Empire Warehouse Co, Lansdowne, London
500 cks, J B Suchlich & Co, Larnica, London
560 bbls, J Brand, Anni, Hamburg
2,900 cks, 1,100 bbls, Empire Warehouse Co, T Fischer, London
2,530 cks, Empire Warehouse Co, Anni, London
500 bbls, J W Binney, C Boe, Stettin
1,476 bbls, E Lenz, C Boe, Stettin
1,460 cks, 2,000 bbls, H Fleming, W Birkedal, London
CHEMICALS—30 cks, Pickhardt & K, P Caland, R'dam
16 cs, T Weicker, P Caland, Rotterdam
20 cks, Roessler & H, Waesland, Antwerp
1 cs, A O Schoonmaker, Servia, L'pool
7 bbls, C Pfizer & Co, Rugia, Hamburg
2 cs, L Englehorn, Trave, Bremen
4 cs, Schering & G, Rugia, Hamburg
1 cs, Schoellkopf, Hartford & M, P Caland, A'dam
34 cs, T Weicker, P Caland, A'dam
75 cs, 2 cks, T Weicker, Rotterdam, Rotterdam
CHILLIES—100 bls, Groat & K, L Hill, London
20 bgs, R Hillier's Son Co, L Monarch, London
COLCOTHAR—6 cks, Hemingway & Co, Lepanto, London
COAL TAR—3 bbls, Roessler & H, Waesland, Antwerp
PROD—2 cks, Heller & Merz, La Bretagne, Havre
COCHINEAL—39 bgs, 4,822lb, E Westervelt, Lepanto, London
CROCUS—15 cks, J L Smith & Co, Santiago, Hull
CUTCH—500 bgs, J R Townsend Co, Vigilant, Calcutta
500 bgs, J M Sharpless & Co, Vigilant, Calcutta
2,500 bgs, 1,010 bxs, Howe, Balch & Tay, Vigilant, Calcutta
696 bgs, 108,234 lb, C C Bancroft & Co, Vigilant, Calcutta
1,999 bgs, Knudson, P & Co, Vigilant, Calcutta
CUNDORANGO BARK—25 bls, 2,608 lb, Munoz & E. C of Para, Aspinwall
COLORS—37 cs, R Mayer & Co, Wieland, Hamburg
5 cs, G W Sheldon & Co, Wieland, Hamburg
17 cks, 9,009lb, Pickhardt & K, Wieland, Hamburg
3 cs, W & H Erdtman, Lahn, Bremen
75 cks, Gabriel & S, Taormina, Hamburg
16 cks, Fuchs & Lang, Waesland, Antwerp
11 cks, 4,839lb, Pickhardt & K, Rotterdam, Rotterdam
1 ck, G W Sheldon & Co, Rotterdam, Rotterdam
8 cks, Sondheim, A & Co, Elbe, Bremen
1 cs, Schmidt & Co, La Bretagne, Havre
2 cs, J A Norman, Werra, Bremen
2 cs, E H Friedrichs, Fulda, Bremen
1 cs, Roessler & H, Trave, Bremen
2 cs, A K Gardiner & Bro, P Caland, Rotterdam
20 cks, Gabriel & S, P Caland, Rotterdam
1 cs, 65lb, J Marsching & Co, Britannic, Liverpool
6 cs, H Kohnstamm & Co, La Champagne, Havre
6 cs, Pickhardt & K, P Caland, Rotterdam
1 cs, Schoellkopf, Hartford & M, Hammonia, H'burg
2 cks, Hensel, B & L, Hammonia, Hamburg
CORKS—1 bl, Mariani & Co, La Bretagne, Havre
58 bls, H Cahn & Co, C Lafite, Bordeaux
CORKWOOD—1 bl, H Cahn & Co, C Lafite, Bordeaux
COLCHICUM SEED—4 bgs, J Clay, Rugia, Hamburg
CUDBEAR—1 csk, 64lb, Davis & Walton, Lahn, Bremen
12 cks, 6,934lb, W A Ross & Bro, Servia, Liverpool
1 csk, Neumark & G, Sorrento, Hamburg
DIVI DIVI—127 bgs, 10,590lb, Foulke & Co, Valencia, Curacoa
DUTCH METAL—1 cs, Gerstendorfer Bros, Wieland, Hamburg
4 cs, Fuchs & Lang, Rugia, Hamburg
DYEWOOD—1 csk, Fisk, Clarke & T, LaBretagne, Havre
EXT—5 csks, J C Bloomfield & Co, LaBretagne, Havre
20 csks, J C Bloomfield & Co, Arizona, Liverpool
DEXTRINE—400 bgs, 86,640lb, J Davies' Sons, Island, Stettin
600 bgs, 129,961lb, C Morningstar & Co. Island, Stettin
300 bgs, 64,980lb, F Rose & Co, Island, Stettin
55 pgs, 12,431lb, C Morningstar & Co, Taormina, H'burg
DRUGS—3 bgs, A O Schoonmaker & Co, Servia, L'pool
52 bls, 65 cs, R Brueckner & Co, Colorado, Hull
36 bls, 2 cks, McKesson & R, Colorado, Hull
9 bls, A O Schoomaker, C of Chicago, L'pool
FUSTIC EXT—9 cks, Banning, B & Co, La Bretagne, Havre
FLOWERS—6 cs, 7 bls, Lehn & Fink, Wisconsin, L'pool
6 bls, J Clay, Rugia, Hamburg
FUSTIC—1,059 pcs, H Marquardt & Co, Niagara, Vera Cruz
3 tons, E Ripka, Ozama, San Domingo
1?2,600lb came per Santiago, Frontera
FULLERS EARTH—50 tons, A De Ronde & Co, L City, Swansea
FENNEL SEED—2 bgs, J Clay, Rugia, Hamburg
FLOCKS—69 bls, H Kohnstamm & Co, La Champagne, Havre
FERTILIZER—8,000 bgs, F Irsch, Alexandria, Fray Bentos
GALLS—35 cs, G B Morewood & Co. L Monarch, London
45 cs, Pelgram & M, A Yeats, Shanghae
100 cs 22,218lb, Stamford Mfg Co. A, Yeats, Shanghae

GELATINE—7 cs, 1,500lb, J Zeller, Rotterdam, R'dam
15 cs, 1,500lb, McKesson & R, Colorado, Hull
1 cs, C Hirschberg, C of New York, L'pool
GAMBIER—4,441 bls, 1,230,544lb, Bidwell & F, Steinvora, S'pore
GINGER—1 bbl, Middleton & Co, Bermuda, Domenica
2 bbls, C Wessels, Hondo, Kingston
GLASS MIRROR—15 cs, 7,895 ft, M Fleischman, Rotterdam, Rotterdam
13 cs, 7,366 ft, S Cohn, Rotterdam, R'dam
45 cs, 22,867 ft. Bendit D & Co, Rotterdam, R'dam
33 cs. 15,521 ft, Vanhorne G & Co, Rotterdam, R'dam
19 cs, 8,400 ft, S Bache & Co, Waesland, Antwerp
22 cs, 11,494 ft, A Arnstein & Co, Rotterdam, R'dam
26 cs. 11,580 ft, Bendit D & Co, P Caland, Rotterdam
12 cs, 6,360 ft, S Cohn, P Caland. Rotterdam
10 cs. 2,469 ft, P Weiderer & Bro, Elbe, Bremen
4 cs, 160ft, W B Denison, Elbe, Bremen
PLATE—38 cs, 1,893 ft, J Kahn, Waesland, Antwerp
111 cs, 33,034 ft, H H Cahn, Waesland, Antwerp
8 cs, 1,800 ft, J Kahn, Wieland, Hamburg
15 cs, 1,548 ft. J Zahn, Celtic, L'pool
8 cs, 5,087 ft, J A Waller, Britannic, L'pool
101 cs, 27,932 ft. S Bache & Co, Noordland, Antwerp
ROLLED—11 cs, 3,376lb, P Semmer & Co, Italy, L'pool
WINDOW—1,150 cs, 66,380lb, T W Morris & Co, Waesland, Antwerp
2,903 cs, 179,430lb, Vanhorne, G & Co, Waesland, Ant'p
1,282 cs, 77,540lb, Holbrook Bros, Waesland, Antwerp
6 cs, 803lb, J Zahn, Celtic, Liverpool
126 pgs, 26,589lb, Heroy & M, Wisconsin, Liverpool
35 bxs, Holbrook Bros, Arizona, Liverpool
368 bxs. 19,850lb, J T Barnes, DeRuyter, Antwerp
660 bxs, 33,000lb, Schneider & K, DeRuyter, Antwerp
510 bxs, 21,377lb, Thorne & Rogers, DeRuyter, Antw'p
2,327 bxs, J Fitzpatrick & Co, Noordland, Antwerp
6 bxs, 600lb, T & J Morgan, La Champagne, Havre
GLUE—100 bgs, 11,200lb, A K Gardiner & Bro, Italy, L'pool
21 cks, 5,035lb, A Hodge & Co, Lahn, Bremen
15 cs, 11,618lb, L De Jonge & Co, Rotterdam, R'dam
26 cks, 26,032lb, B W Jones, Colorado, Hull
200 bgs, 22,400lb, A K Gardiner & Bro, L City, Bristol
100 bgs, 11,200lb, Milligan & H Glue Co, L City, Bristol
100 bgs, 11,200lb, A E Reimann, L City, Bristol
GLYCERINE CRUDE—100 dms, 108,120 lb, Marx & Rawolle, Waesland, Antwerp
60 dms, J E Schweizer & Co, La Bretagne, Havre
20 dms, 21,440lb, J E Schweizer & Co, Colorado, Hull
REF—15 cs, 750lb, Lazell, D & Co, Lepanto, London
GREASE—60 cks, A L Knight, Italy, L'pool
GUINEA GRAINS—50 bgs, 6,452lb, Stallman & F, Servia, L'pool
GYPSUM—2 blocks, Batterson, S & E, Colorado, Hull
1 block, Batterson, S & E, Otranto, Hull
GUM ANIMI—20 cs, 4,008lb. Knudson P & Co, Waesland Ant
ARABIC—6 bls, 2,700lb, F Paulsen & Co, Polaria, Hamburg
9 cs, Fuchs & Lang, Werra, Bremen
24 cs, D E Green, L Monarch, London
COPAL—18 cs, 3,600lb, Arnold C & Co, Waesland, Ant
15 bbls, 2,464lb, J Cantor, Servia, Liverpool
100 cs, 20,200lb, E Hill's, Son & Co, Steinvora, S'pore
ELEMI—20 cs, 2,210lb. G Tiedeman, Wieland, H'burg
GUAIAC—3 cs, 477lb, J Clay, Rugia, Hamburg
MYRRH—1 bbl, 212lb, McKesson & R, L Hill, London
SENEGAL—200 bgs, 37,485lb, Thurston & B, Italy, L'pool
15 cks, 8,413lb, West & Jenny, La Bretagne, Havre
TRAG—43 cs, D E Green, Lepanto, London
24 cs, T K Cummins & Co, Lepanto, London
HYDROLEINE—23 cks, W Downie, Colorado, Hull
17 cks, W Downie, Santiago, Hull
INSECT FLOWERS—45 bls, 10,870lb, Thurston & B, Britannic, L'pool
INDIGO—10 cs, N Y Dye Ext & C Co, Wieland, Hamburg
AUX—14 cks, 22,011lb. A Klipstein, Waesland, Antwerp
INDIGOTINE—1 csk, Neumark & G, Sorrento, Hamburg
2 pgs, 220lb, Lutz & Movius, La Normandie, Havre
INDIAN RED—10 cks, G A & E Meyer, Colorado, Hull
IPECAC—5 ser, R Hillier's Son Co, L Monarch, London
IRISH MOSS—28 bls, 3,080lb, M Koenigsheim, La Bretagne, Havre
IRON OXIDE—134 cks, Hemingway & Co, L City, Bristol
75 cks, 22,512lb, D F Tiemann & Co, Otranto, Hull
8 pgs, J Campbell & Co, Arizona, L'pool
50 cks, J L Smith & Co, Santiago, Hull
JUNIPER BERRIES—200 bls, R Hillier's Son Co, Italia, L'horn
100 bls, M Koenigsheim, Italia, Leghorn
200 bls, E N & J B Lawrence Jr, Italia, Leghorn
100 bls, Weaver & Sterry, Italia, Leghorn
LAUREL BERRIES—25 bls, R F Downing & Co, Italia, L'horn
LEECHES—5 cs, M Meyer, Hammonia, Hamburg
2 tubs, Hensel, B & L, Hammonia, Hamburg
5 cs, M Meyer, La Champagne, Havre
4 cs, H Witte, La Champagne, Havre
LIME JUICE—4 hhds, 208 gls, J F Whitney & Co, May, Falm'th
LICORICE PASTE—25 cs, 5,374lb, Stallman & F. California, G'oa
30 cs, 3,224lb, Weaver & Sterry, California, Genoa
ROOT—5,772 bls, McAndrews & F, Amaranth, Scol a Nova
LINSEED—5,000 bgs, 20,254 bu, Atlantic W L & L S O Co, Vigilant, Calcutta
LOGWOOD—6½ tons, W H Van de Water, Prinz William I, Pt au Prince
550¾ tons, H S Henry & Son, A P Gould, Pt Morant
28 tons. J W Wilson & Co, Saratoga, Frontera
86 tons, E Ripke, Ozama, San Domingo
18 tons, M D Senior, Ozama, San Domingo
EXT—2 cks, Davis & W, Werra, Bremen
MACE—1 bx, A S Lascelles & Co, Athos. Kingston
MATCHES—50 cs, C Rosenstein & Co, Santiago, Hull
MENTHOL—4 cs, 231lb, McKesson & R, Wieland, Hamburg
NUTMEGS—32 cs, 2,128lb, Carleton & M, Elbe, Bremen
LANOLINE—10 cs, 1,000lb, Lutz & M, California, Hamburg
LAKE, WOOD—5 bbls, 2,404lb, Lutz & M, Rhaetia, Hamburg
OCHER—2 cks, H Kohnstamm & Co, La Champagne, Havre
OIL ANISE—20 cs, 1,333lb, A A Stilwell, A Yeats, H Kong
20 cs, 1,333lb, S F Gibbons, A Yeats, Hong Kong
COCOA—30 bbls, 11,547lb, T M Marc, Celtic, L'pool
COD LIVER—20 bbls, Eimer & Amend, Rotterdam, R'dam
50 bbls, 50 cs, W H Schieffelin & Co, Colorado, Hull
EXPRESSED—40 cs, 10 cks, 4,480 lb, Wing Wo Chong, A Yeats, Hong Kong
20 cs, 1,440lb, Sang Chong, A Yeats, Hong Kong
30 cs, 2,160lb, Sang Quong On, A Yeats, Hong Kong
ESS—1 cs, Schering & G, Rugia, Hamburg
LAVENDER—16 cs, 1,800lb, G Lueders, Burgundia, Marseilles
SPIKE—10 cs, 1,120lb, G Lueders, Burgundia, Marseilles
ROSEMARY—16 cs, 1,800lb, G Lueders, Burgundia, M'seilles
MYRBANE—3,175lb, W J Matheson & Co, Canada, London
OLIVE—117 bbls, 5,989 gls, W C Benedict, California, Naples
ORIGANUM—9 cs, 495lb, O B Wilson, Devonia, Glasgow
PALM—8 cks, 10,432lb, B P Ducas & Co, Celtic, Liverp'ol
NUT—76 cks, T M Marc, Britannic, Liverpool
ROSE—3 cs, Dodge & O, Servia, Liverpool
SESAME—22 bbls. 1,118 gls, W H Schieffelin & Co, California, Trieste
THYME—3 cs, 198lb, O B Wilson, Devonia, Glasgow
ORRISROOT—1 cs, 103lb, J Clay, Rugia, Hamburg
ORANGE LEAD—40 cks, 25,276lb, L Windmuller & R, Rotterdam, Rotterdam
64 cks, 43,583lb, A B Ansbacher & Co, Rotterdam, R'dam
30 cks, 21,159lb, Pickhardt & K, Rotterdam, Rotterdam
PERFUME—2 cs, H Seligman, La Bourgogne, Havre
16 cs, Park & Tilford, La Champagne, Havre
1 cs, Mulhens & K, Waesland, Antwerp
25 cs, Park & Tilford, Rotterdam, R'dam
17 cs, Park & Tilford, La Bretagne, Havre
PHOSPHORUS—75 cs, 8,250lb, C Pfizer & Co, Santiago, Hull
50 cs, 5,500lb, C Pfizer & Co, Colorado, Hull
PIMENTO—100 bgs, G Wessels & Co, Alene, Kingston
41 bgs, 5,617lb, A S Lascelles & Co, Alene, Kingston
POMADE—3 cs, Dodge & O, La Champagne, Havre
POTASH BICARB—10 cs, 1,100lb, McKesson & R, Wieland, H'g
4 cks, 2,239lb, Lazell D & Co, Lepanto, London
POTASH CHLO—30 cks, J L & D S Riker, Santiago, Hull
10 cks, 5,600lb, J L & D S, Riker, C of Berlin, L'pool
400 kgs, 44,800lb, Pickhardt & K, Rotterdam, R'dam
62 cs, J L & D S Riker, La Bretagne, Havre
CARB—35 cks, 34,692lb, A Klipstein, Rotterdam, R'dam
PRUSS—23 cks, 10,000lb, C DeP Field, S of Neb, G'gow
POTATO FLOUR—100 bgs, 21,666lb, F Rose, Island, Stettin
PUMICE—45 cs, 10,162lb. T Van Amringe, Italia, Leghorn
QUININE—5 cs, 5,000 ozs, C Von Pustau & Co, Lahn, Bremen
cs, 5,000 ozs, J Clay, Werra, Bremen
RAPESEED—100 bgs, 21,560lb, Levy & Levis, Otranto, Hull
4 bgs, 440lb, C Reiche & Bro, Elbe, Bremen
ROSE LEAVES—2 bls, 179lb. McKesson & R, L Hill, London
10 cks, J Zeller, Rotterdam, A'dam
5 cks, 499lb, Lazell, D & Co, Rotterdam, A'dam
SANDALWOOD—2 pgs, 325lb, McKesson & R, L Hill, London
SEED—3 bgs, McKesson & R, L Hill, London
SAGE—50 bls, Peek & Velsor, Lepanto, London
SARSAPARILLA—49 bls, 10,343lb, A Lehman & Co, Hondo, Livingston
SAGO—234 bgs, 24,077lb, Rosenstein Bros, Erin, London
FLOUR—792 bgs, O S Janney & Co, Steinvora, Singapore
SENNA—1 bale, Lazell D & Co, C of Richmond, Liverpool
5 bales, Hemingway & Co, Lepanto, London
SAGE—1 bale, R F Downing & Co, Bothnia, Liverpool
SHELLAC—100 cs, L C King & Co, Vigilant, Calcutta
376 cs, 81,907lb, N Y Shellac Co. Erin, London
15 cs, Hemingway & Co, Lepanto, London
10 cs, G B Morewood & Co, L Monarch, London
SALTPETER—293 bgs, 58,466lb, J E Whitney, Vigilant, Calcutta
275 bgs, 53,181lb, H H Crocker & Co, Vigilant, Calcutta
566 bgs, 120,349lb, Knudson P & Co, Vigilant, Calcutta
SODA ASH—166 cks, J L & D S Riker, Italy, Liverpool
101 cks, 169,012lb, E Yarnall & Son, R Water, L'pool
BICH—263 cks, 187,893lb, J L & D S Riker, S of Ga, Gl'gow
CAUSTIC—400 dms, 260,000lb, T M Marc, Britannic, L'pool
300 dms, 195,000lb, E Hill's Son & Co, C of Berlin, L'pool
200 dms, 130,000lb, T M Marc, Celtic, Liverpool
666 dms, 437,887lb, J Lee & Co, England, Liverpool
100 dms, 67,234lb, J Lee & Co, Germanic. Liverpool
HYPO—110 kgs, Schering & G, Island, Stettin
SPONGE—36 bls, C A Salmon & Co, Niagara, Havana
SUMAC EXT—25 cks, Pickhardt & K, Waesland, Antwerp
10 cks, Pickhardt & K, La Bretagne, Havre
STEARINE—1 bbl, 570lb, American Oil Co, P Caland, A'dam
17 bgs, Hensel, B & L, Island, Stettin
TAMARINDS—80 kgs, 5,250lb, Stallman & F, Erin, London
ULTRAMARINE—3 cs, 1,008lb, Heller & M, Lahn, Bremen
2 cks, 1,120lb, B Meiners, Rotterdam, Rotterdam
TURKEY RED—10 cks, G A & E Meyer, Colorado, Hull
VANILLINE—1 cs, Dodge & Olcott, La Champagne, Havre
VANILLA BEANS—8 cs, 1,488lb, J W Wilson & Co, Mexico, Vera Cruz
VARNISH—2 cks, 100 gls, Warren L & Co, Trave, Bremen
VENETIAN RED—100 bbls, J L Smith & Co, Santiago, Hull
14 cks, Hemingway & Co, Lepanto, London
VERMILION—4 cs, R Mayer & Co, Fulda, Bremen
WASH BLUE—1 ck, H Kohnstamm & Co, La Champagne, H'e
WHITE LEAD—197 pgs, 39,816 J L Smith & Co, Lepanto, L'don
ZINC OXIDE—1 cs, 200lb, McKesson & R, L Hill, London
50 cks, 11,024lb. L Windmuller & R, Rotterdam. R'dam
5 bbls, 234lb, Lazell D & Co, Lepanto, London

WAREHOUSED.

ANILINE COLORS—50 cs, 7 cks, Pickhardt & K, P Caland, Rotterdam
3 cs, 1,100lb, P H Karcher, La Champagne, Havre
5 pgs, 447lb, Sykes & Street, La Champagne, Havre
BRISTLES—10 pgs, 2,205lb, F W Von Stade, La Bourgogne, Havre
14 cks, 7,566lb, C Cohn & Baeder, Hammonia, Hamburg
6 pgs, 1,323lb, F W Von Stade, La Champagne, Havre
BRONZE POWDER—1 cs, G H Barbey, Rugia, Hamburg
14 cs, Hoffman & O, Trave, Bremen
1 cs, W & H Erdtman, Elbe, Bremen
CHEMICALS—20 cks, 8,327 lb, Pickhardt & K, La Bourgogne Havre
1 cs, 100 ozs, Johnson & J, La Champagne, Havre
COLORS—2 cs, Davis & W, Erin, London
CHINESE BLUE—1 cs, Davis & W, Erin, London
CEMENT—400 bbls, Behrend & T, Tagal, Danzig
FRANKFORT BLACK—1 csk, W & H Erdtman, Elbe, Bremen
GALL EXT—1 csk, 191lb, Rogers & Pyatt, Rugia, Hamburg
GLASS WINDOW—2,052 cs, Dougherty, E & M, De Ruyter, Antwerp
LEAD—4,154 pigs, 440,407lb, Schulz & R, Britannia, Malaga
LICORICE PASTE—300 cs, 75,000lb, Carenon & T, C Lafite, Bordeaux
MATCHES—20 cs, C Rosenstein & Co, Otranto, Hull
COD LIVER—25 bls, 257 gls, Stallman & F, Otranto, Hull
POTASH CHLO—125 cs, 13,876lb, J L & D S Riker, La Bretagne, Havre
RAPESEED—300 bgs, 66,139lb, C Von Pustau & Co, Otranto, Hull
50 bgs, 11,022lb, Rosenstein Bros, Otranto. Hull

IMPORTS AT BOSTON.

BLEACH—83 cks, E & F King & Co, Kansas, Liverpool
338 cks, Kansas, Liverpool
464 cks, Bulgarian, Liverpool
86 cks, Wing & Evans, Bulgarian, Liverpool
81 cks, E & F King & Co, Bulgarian, Liverpool
181 cks, Linder & Meyer, Bulgarian, Liverpool
60 cks, J L & D S Riker, Pavonia, Liverpool
CANARY SEED—100 bgs, Kansas, Liverpool
CHINA CLAY—201 cks, Kansas, Liverpool
50 cks, Bulgarian, Liverpool
DYES—25 cks, Beach & Co, Pavonia, Liverpool
DYEWOOD EXT—10 cks, Beach & Co, Catalonia, Liverpool
FARINA CALC—4 cks, J M O'Rourke, Catalonia, Liverpool
FUSTIC—384 tons, Suzarte & W, E Sheraton, Maracaibo
GELATINE—10 cks S S Pierce & Co, Catalonia, L'pool
10 cks, J A Hayes & Co, Pavonia, Liverpool
GLASS PLATE—4 cs. R Sherburne & Co. Bulgarian, L'pool
9 cs, Lambert Bros, Bulgarian, L'pool
12 cs, Heroy & M, Bulgarian, L'pool
WINDOW—25 bxs, Catalonia, L'pool
INDIGO—20 cs, Howe, Balch & Tay, Milanese, London
LOGWOOD—78 pcs, Boston Logwood Co, Worcester, Port Hawkesbury

ENGLISH ARCHIL LIQUOR AND CUDBEAR
Bags
Barrels
Kegs
W. A. ROSS & BRO.,
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Aniline Oil.
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BINITROTOLUOLE,
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Ehrenfeld, near Cologne.
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SULPHURIC ACID.

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Dyewood Extracts,
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Chestnut
Hemlock.
Cudbear,
Sumac American,
Sumac Sicily,
Gambier,
Cutch,
Divi Divi,
Nut Galls

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Tin Crystals,
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Muriate Tin,
Oxy Mur. Tin,
Oxy Mur. Antimony,
Antimony Salts,
Nitrate Copper,
Nitrate Iron
Iron Liquor,
Prussiate Potash, Red
" " Yel
Oxalic Acid,
Glauber Salt,
Fullers Earth.

OIL COD—13 cks, A Winsor & Son, Halifax, Port Hawkesbury
70 cks, order, Halifax, Port Hawkesbury
12 cks, Whitney, P & Co, Yarmouth, Yarmouth
16 bbls, order, Yarmouth, Yarmouth
29 cks, Whitney, P & Co, Worcester, Port Hawkesbury
198 cks, Stratton, Little & Co, Acacia, St John's, N F
OLIVE—15 bbls, Kansas, L'pool
PERFUME—35 pgs, Robinson Bros & Co, Pavonia, L'pool
POTASH CHLO—100 kgs, E & F King & Co, Kansas, L'pool
SENNA—6 cs, 3 bls, Cutler Bros & Co, Montana, London
SIZE -30 cks, J M O'Rourke, Catalonia, L'pool
SODA ASH—317 cks, 400 bgs, Kansas, Liverpool
51 cks, E & F King & Co, Bulgarian, L'pool
81 cks, Morey & Co, Bulgarian, L'pool
600 bgs, order, Bulgarian, L'pool
CAUSTIC—50 dms, E & F King & Co, Kansas, L'pool
21 dms, Kansas, Liverpool
CARB—84 bbls, Catalonia, L'pool
SAL—140 bbls, Kansas, L'pool

IMPORTS AT PHILADELPHIA.

ALKALI—40 cks, Powers & W, Savannah, Bremen
BLEACH—84 cks, 112,556 lb, J Lee & Co, Bengore Head, L'pool
BARK—704 bls, 5 cs, Powers & W, Montana, London
BRISTLES—35 bls, order, Montana, London
BONES—440 tons, Excelsior, Buenos Ayres
CHAMOIS—2 cs, W B Burk & Co, Minnesota, London
CEMENT—840 cks, Savannah, Bremen
3,900 cks, G Grawitz, Cuba, Stettin
CHINA CLAY—1,260 cks, Dunn Bros, Onward, Fowey
GAMBIER—419 bls, McNally & Co, Montana, London
KAINIT—159 tons, Stella, Hamburg
KIESERIT—24 tons, Stella, Hamburg
MANURE SALT—1,515 bgs, Stella, Hamburg
OIL—90 bbls, J Lucas & Co, Nordstjernen, Antwerp
PAINT—16 cks, Farr & Bailey, Montana, London
POTASH—41 cks, C Smith & Co, Montana, London
20 cks, Smith, Kline & Co, Montana, London
MURI—2,500 bgs, Stella, Hamburg
SODA ASH—38 cks, Cooper Smith & Co, Br Prince, L'pool
SPONGE—25 cs, W B Burk & Co, Montana, London

IMPORTS AT BALTIMORE.

ALOES SAC—7 cs, J J Thomsen, Montana, London
BLEACH—186 cks, Baltimore, Liverpool
KAINIT—1,200 tons, A Kerr, Bro & Co, C E Lefurgey, H'burg
MANURE SALT—1,978 bgs, H Lautz & Co, Hermann, Bremen
PAINT—141 cks, Baltimore, Liverpool
SALT CAKE—136 cks, Baltimore, Liverpool
571 cks, Oranmore, Liverpool
SOAP—65 bxs, Baltimore, Liverpool
SODA ASH—833 cks, Baltimore, Liverpool
82 cks, 112,828 lb, Wing & Evans, Oranmore, L'pool
533 cks, order, Oranmore, Liverpool
SAL—265 bbls, Baltimore, Liverpool

IMPORTS AT CHARLESTON.

BRIMSTONE—500 tons, Lenuccia, Girgenti

IMPORTS AT NEW ORLEANS.

ORANGE WATER—80 pgs, C Penco, Genoa
PHOSPHATE—1,775 tons, Rochdale, London
SOAP—295 cs, C Penco, Genoa
SUPERPHOSPHATE—2,001 tons, Capulet, L'pool
TALC—250 bgs, C Penco, Genoa

IMPORTS AT CHICAGO.

Week ending Nov. 3, 1888.
CHAMOIS SKINS—2 cs, Fuller & Fuller
COLORS—1 cs, Arthur Sullivan
GLASS WINDOW—7 cs, B L Anderson & Co
9 cs, First National Bank
50 cs, G W Sheldon & Co
PAINT—455 cs, G W Sheldon & Co
5 cs, Thayer & Chandler
SODA ASH—77 tcs, R Crooks & Co
CAUSTIC—50 dms, Geo R Jenkins & Co

WITHDRAWALS FROM BOND.

From Nov. 5 to Nov. 9, inclusive.

Acid boracic, cks	3
Aniline colors, pgs	125
Alumina sulph, cks	300
Bay rum, pgs	143
Bronze powder, cs	10
Bristles, pgs	49
Castor seed, bgs	1,162
Corks, bls	5
Dyewood ext, cks	15
Glass mirror, cs	12
Glass window, bxs	723
Glycerine crude, dms	7
Indigotine, cs	2
Lead, pigs	360
Licorice paste, cs	5
Matches, cs	25
Oil castor, gls	80
Opium, cs	12
Paint, dms	75
Paint, kgs	5
Poppy seed, bgs	200
Pomade, cs	1
Potash bich, cks	58
Potash caustic, dms	22
Potash hydrate, cks	2
Red lead, cks	7
Soda bicarb, kgs	30
Soda caustic, dms	10
Sponge, bls	17
Ultramarine, cs	10
Varnish, cs	1

TOTAL DOMESTIC RECEIPTS.

FOR WEEK ENDING NOVEMBER 3, 1888.

	For week.	Since Jan 1.
Alcohol, bbls.	704	22,435
Ashes, pkgs.	40	1,724
Beeswax, pkgs.	3	762
Borax, pkgs.	2,876	41,202
China clay, cks.	203	4,404
Cottonseed, bags.	350	5,913
Meal, bgs.	..	35,339
Cake, bgs.	..	72,016
Soap stock, bbls.	..	1,158
Flaxseed, bush.	17,700	206,545
Grease, pkgs.	812	33,310
High Wines, bbls.	1,372	49,800
Lead, pigs.	9,540	398,196
Mustard seed, bgs.	689	7,177
Oil, Cottonseed, bbls.	1,008	70,181
Lard, bbls.	70	5,515
Linseed, bbls.	..	
Lubricating, bbls.	427	33,085
Cake, bags.	1,896	174,539
Oleo stock, pkgs.	32	15,737
Pitch, bbls.	236	2,843
Quicksilver, flks.	300	5,200
Rosin, bbls.	3,260	330,372
Stearine, pkgs.	87	6,213
Sumac, bags.	..	53,686
Tallow, pgs.	1,156	45,317
Tar, bbls.	1,380	25,324
Turpentine, crude, bbls.	75	446
Spirits, bbls.	1,301	2,072

NEW YORK DOMESTIC RECEIPTS.

For week ending Nov. 5.
ALCOHOL—389 bbls, J A Webb, Penn RR
315 bbls, J A Webb, B & O RR
ASHES—9 pgs, order, Balt Inland
2 pgs, various, H R RR
38 pgs, order, H R RR
ASPHALTUM—50 bbls, Standard P Co, str, S F
BEESWAX—2 pgs, J Cilley & Co, str, R'mond
1 pg, order, str, Richmond
BORAX—2,306 bgs, Order str, S F
570 cks, Delafield, Kissel & Co, str, S F
CLAY—100 cks, R McNamee & Co, str, Char
25 cks, C B Barber, str, Brunswick
42 cks, C B Barber, str, Savannah
36 cks, A Geise, str, Richmond
CEMENT, COPPER—178 bgs, str, S F
COTTONSEED—150 bgs, Ralli Bros, str, Gal.
200 bgs, forward, str, Richmond
DAMIANA—5 bls, S Hartford & M, str, S F
FLAXSEED—17,700 bush, various, canal
GREASE—311 pgs, order, N R boats
200 pgs, order, H R RR
5 pgs, order, Penn RR
28 pgs, J Drew, N R boats
100 pgs, Welch, H & C, N R boats
68 pgs, J Sinclair & Co, H R RR
36 pgs, A L Knight, Penn RR
4 pgs, order, D L & W RR
20 pgs, order, C RR of N J
HIGH WINES—260 bbls, G W Kidd, D, L & W RR
70 bbls, E Howe, H R RR
65 bbls, Cook & B, Penn RR
130 bbls, J A Webb, Penn RR
195 bbls, Ross & K, Penn RR
65 bbls, order, Penn RR
260 bbls, Curtis & Co, Penn RR
130 bbls, T B Kerr, Penn RR
132 bbls, J L Hasbrouck, D L & W RR
65 bbls, J A Webb, B & O RR
LEAD—5,729 pigs, order, H R RR
3,390 pigs, order, Penn RR
430 pigs, order, Erie RR
MUSTARD SEED—689 bgs, order, str. San F
OIL COTTONSEED—300 bbls, So Oil Co, str, New Orleans
401 bbls, Am Oil Co, str, Richmond
7 bbls, order, N R boats
50 bbls, Faith Oil Co, str, Galveston
200 bbls, Am Oil Co, str, Savannah
50 bbls, J Macy's Sons, str, Savannah
FISH—200 bbls, order, str, San Francisco
LARD—70 bbls, J Sinclair & Co, D L & W RR
LUB—427 bbls, order, Erie RR
WHALE—40 cks, 100 bbls, order, str, San F
CAKE—200 pgs, I & C Moore & Co, Erie RR
840 bgs, Simmonds & G, H R RR
100 bgs, Simmonds & G, L V RR
300 bgs, A B Gibbs, H R RR
106 bgs, I & C Moore & Co, Penn RR
350 bgs, order, Erie RR
OLEOSTOCK—32 pgs, order, N R boats
PITCH—50 bbls, forward, str, Savannah
30 bbls, forward, str, Wilmington
156 bbls, order, str, Wilmington
QUICKSILVER—300 flks, Taft, H & Co, str, New Orleans
ROSIN—230 bbls, forward, str, Savannah
550 bbls, Murchison & Co, str, Savannah
576 bbls J Turtons Sons, str, Savannah
302 bbls, M W Larendon, str, Savannah
150 bbls, C S Higgins, str, Savannah
418 bbls, F W Blossom, str, Savannah
346 bbls, order, str, Wilmington
68 bbls, Tolar & H, str, Richmond
160 bbls, Dutton & W, str, Savannah
60 bbls, order, str, Savannah
299 bbls, F W Blossom, str, Charleston
100 bbls, Z Mills, str, Wilmington
10 bbls, forward, str, Wilmington
STARCH—1,100 pgs, order, H R RR
500 pgs, order, Penn RR
STEARINE—28 pgs, Pool & M, Penn RR
6 pgs, G Vandenhove, Penn RR
53 pgs, Fowler Bros, H R RR
TALLOW—7 pgs, order, Penn RR
8 pgs, order, N Y, O & W RR
101 pgs, order, N R boats
4 pgs, order, D, L & W RR
100 pgs, order, N Y, W S & B RR
58 pgs, order, L V RR
40 pgs, order, C RR of N J
25 pgs, H W Calef, str, Richmond
17 pgs, G B Ferris & Co, Penn RR
79 pgs, C S Higgins, L V RR
200 pgs, G Vandenhove, N Y, W S & B RR
18 pgs, G Vandenhove, N R boats
9 pgs, G Vandenhove, Penn RR
31 pgs, Kuh & T, N Y, W S & B RR
35 pgs, P H Van Iderstine, C RR of N J
35 pgs, H W Calef, N R Boats
13 pgs, H W Calef, L V RR
60 pgs, E Winter, Penn RR
100 pgs, Welch, H & C, Penn RR
6 pgs, Colgate & Co, D, L & W RR
11 pgs, A Churchman, N R boats
4 pgs, order, Erie RR
49 pgs, order, H R RR
44 pgs, Colgate & Co, Penn RR
7 pgs, Kranskaf & Co, C RR of N J
10 pgs, De Long & Co, C RR of N J
5 pgs, Colgate & Co, Penn RR
51 pgs, H W Calef, D, L & W RR
29 pgs, H Stenfield, L V RR
TAR—1,062 bbls, forward, str, Wilmington
285 bbls, order, str, Wilmington
13 bbls, Z Mills, str, Richmond
20 bbls, G W Bailey & Co, str, Richmond
TURPENTINE SPIRITS—85 bbls, forward, str, Savannah
15 bbls, W R Winn, str, Savannah
86 bbls, forward, str, Wilmington
737 bbls, order, str, Wilmington
110 bbls, Tolar & H, str, Richmond
99 bbls, G W Bailey & Co, str, Richmond
7 bbls, Z Mills, str, Charleston
22 bbls, W H Wiggins, str, Charleston
40 pgs, Dutton & W, str, Savannah
CRUDE—70 bbls, forward, str, Wilmington
5 bbls, order, str, Wilmington

SAVANNAH DOMESTIC RECEIPTS

For week ending Nov. 2.
ACID—5 cbys, C & S RR
BRUSHES—9 bxs, S, F & W RR
CLAY—36 cks, C RR
COTTONSEED—496 sks, Augusta
2 cars, C & S RR
3 cars, S, F & W RR
25 cars, C RR
GREASE—49 bbls, Augusta
NITRATE SODA—13 sks, C & S RR
OIL COTTONSEED—96 bbls, C RR
1 tnk, C & S RR
PAINT, CEMENT—4 cans, C & S RR
ROSIN—13 bbls, C & S RR
6,085 bbls, S, F & W RR
2,118 bbls, C RR
32 bbls, Augusta
11 bbls, Brunswick
STARCH—102 bxs, S, F & W RR
TALLOW—20 bbls, S, F & W RR
TAR—3 bbls, S, F & W RR
SPIRITS TURP—59 bbls, C & S RR
2,196 bbls, S, F & W RR
633 bbls, C RR
39 bbls, Augusta
17 bbls, Brunswick
CDE—214 bbls, S, F & W RR
WAX—9 pgs, C RR

BOSTON DOMESTIC RECEIPTS

For week ending Nov. 2.
COTTONSEED MEAL—444 bush, By sea
800 bush F RR
GREASE—221 bbls, 2 pgs, O C RR
130 bbls, 558 tcs, T RR
156 bbls, 3 bbls, B & M R R
60 bbls, N Y & N E RR
7 bbls, 22 pgs, by sea
72 bbls, B & A RR
38 bbls, 8 pgs, B & P RR
TALLOW—37 bbls, O C RR
39 bbls, 1 pg, F RR
14 bbls, 16 pgs, B & M RR
78 bbls, B & A RR
3 bbls, N Y & N E RR

WILMINGTON DOMESTIC RECEIPTS

For week ending Nov. 2.
ROSIN—1,392 bbls, Inland
TAR—1,087 bbls, Inland
TURPENTINE SPIRITS—897 cks, Inland
CRUDE—492 bbls, Inland

CHARLESTON DOMESTIC RECEIPTS

For week ending Nov. 2.
CLAY—192 cks, S C RR
OIL—2 cars, N E RR
ROSIN—394 bbls, S C RR
38 bbls, C & S RR
593 bbls, N E RR
SPIRITS TURPENTINE—252 cks, 1 tnk, SCRR
77 cks, C & S RR
164 cks, N E RR

NEW ORLEANS DOMESTIC RECEIPTS.

For week ending Nov 1.
ACID—256 cbys, Cincinnati
ALCOHOL—54 bbls, 8 hf bbls, Ill C RR
CEMENT—300 bbls, Cincinatti
COTTONSEED—4,067 sks, Bayou Sara
2,019 sks, S P RR
26 cars S P RR
20 cars, L N O & T RR
10 cars, T & P RR
2,152 sks, T & P RR
45,725 sks Vancluse
100 sks, Coriola Landing
1 car, N O & N E RR
31,000 sks Leola
265 sks, Hope Villa
HULLS—2 cars, N O & N E RR
MEAL—400 sks, Ill C RR
3,500 sks, T & P RR
5,000 sks, Vancluse
12,470 L N O & T RR
1 car, S P RR
GLUCOSE—396 bbls, Ill C RR
GLYCERINE—10 cs, Cincinnati
GREASE—1 car, L N O & T RR
LEAD—24 pgs, Brazos, Santiago
NAPHTHA—4 cars, L, N O & T RR
OIL—626 bbls, S P RR

NEW CROP **VANILLA BEANS** MEXICAN
GEORGE LUEDERS, 213 Pearl St., N. Y.
Also Sole Agent for
LAUTIER FILS, Grasse.—Pomades, Essential Oils, Almond and Olive Oil.
HEINE & CO., Leipzig. Essential Oils.
SASSERNO, PICCON & MAUNIER, Bari.—Pure Olive Oil.
P. La SPINA & CO., Reggio.—Oil of Lemon and Bergamot.

96 bbls, 16 hlf bbls, 45 cbys, S P RR
45 bbls, Cincinnati
2 cars, L, N O & T RR
1 tank, L & N RR
5 cars, N O & N E RR
100 bbls, T & P RR
CAKE—3 cars, L & N RR
2,931 scks, L, N O & T RR
2 cars, 2,372 scks, S P RR
PAINT—15 bbls, Cincinnati
PETROLEUM—1 car, T & P RR
PITCH—1 car, L & N RR
ROSIN—124 bbls, Mobile
SOAP—1,801 bxs, St Louis
1 car, N O & N E RR
STOCK—60 bbls, T & P RR
STARCH—3,244 bxs, Cincinnati
515 bxs, L & N RR
TALLOW—23 pgs, L & N RR
TAR—1 car, L & N RR
TURPENTINE—134 bbls, Mobile
WAX—2 tcs, L & N RR
WHITE LEAD—866 pgs, St Louis

EXPORTS FROM NEW YORK FOR THE WEEK ENDING NOV. 5.

ACID
2 cbys $10 Harold, Mayaguez
1 cs $130 Saratoga, Havana

ACID CARBOLIC
1 cs $3 Trinidad, Hamilton

ACID MURIATIC
1 cs $13 Saratoga, Havana

ACID NITRIC
1 cs $14 Saratoga, Havana
5 cbys $33 Saratoga, Vera Cruz

ACID SULPHURIC
3 cbys $16 Santiago, Nassau
1 cs, $11 Saratoga, Havana
10 cbys $39 Muriel, Br West Indies
2 cbys $10 Andes, Jeremie

ACID TARTARIC
1 cs $90 Saratoga, Havana

ALCOHOL
138 gls $76 Muriel, Barbadoes

AMMONIA
5 cbys 2 cs $80 Saratoga, Havana

ASPHALTUM
3 bbls $55 Ludgate Hill, London

BENZINE
95 gls $20 Simeon, Auckland
475 gls $68 Agnes, Montevideo

BORAX
1 bbl $27 Santiago, Cienfuegos

CANDLES
8 bxs $10 Santiago, Nassau
2 bxs $8 Trinadad, Bermuda
13 pgs $32 Mary Culmer, Nassau
2 cs $24 Saratoga, Mexican ports
20 cs $96 Cearense, Para
100 cs $92 Harold, Mayaguez
35 bxs $43 Prins Wilhelm I, Carupano
8 pgs $80 Andes, Pt au Prince
3 cs $35 Andes, Jacmel
30 bxs $38 Muriel, Domenica
18 cs $225 Muriel, Barbadoes

CARBON
12 bbls $72 Anchoria, Glasgow

CASCARA SAGRADA
14 bls $880 Ludgate Hill, London

CASSIA
7 bls $6 Prins Wilhelm I, Carupano

CASTOR POMACE
750 bgs $773 Trinidad, Bermuda
100 bgs $100 Trinidad, Hamilton

CEMENT
1 cs. $13 Lahn, Bremen
10 bbls $12 Santiago, Cienfuegos
40 bbls $98 A Campbell, Vicques
10 bbls $26 Wm Beazley, Macoris
20 bbls $12 Mary Culmer, Nassau
15 bbls $39 Andes, Petit Goave

CHALK
10 bbls $17 Manson, San Juan
1 hgd $13 Santiago, Cienfuegos
5 bbls $8 Harold, San Juan

COPPER PAINT
10 gls $15 Andes, Jeremie
1 cs, 16 Wm Beazley, Macoris

COPPER SULPHATE
230 cs $1.359 C of Para, Rosana

DYESTUFF
1,400 lb $77 Arizona, Liverpool

DYEWOOD EXTRACT
5,500 lbs $456 Noordland, Antwerp
30,000 lb $2,479 Wieland, Hamburg

FERTILIZER
460 bbls $1,522 Trinidad, Hamilton

GASOLINE
300 gls $105 Southern Cross, Sydney
390 gls $110 V L Stafford, Pt Natal
300 gls $112 H S Jackson, East London

GLASS WINDOW
2 cs $10 Andes, Jeremie

GLUE
100 lb $16 Santiago, Santiago
160 lb $20 A E Rickerson, Pt au Prince
181 lb $45 Southern Cross, Sydney
2,522 lb $749 Manson, St John's, P R
236 lb $42 Fairfield, Pt au Prince
13,337 lb $666 Noordland, Antwerp
866 lb $120 Saratoga, Havana
50 lb $8 Andes, Pt au Prince

GLUE STOCK
2 bbls $200 Wieland, Hamburg

GREASE
18,232 lb $525 Spain, Liverpool
97,649 lb $9,765 P Caland, Amsterdam
12,510 lb $469 C of Para, Panama
52,383 lb $4,102 La Bretagne, Havre
2,800 lb $225 Santiago, Hull

HEMLOCK EXTRACT
404 lb $1,010 Ludgate Hill, London

LAMPBLACK
2 bbls $6 Fairfield, Pt au Prince

LUBRICATING GREASE
28 pgs $55 Simeon, Auckland
130 cs $345 Southern Cross, Sydney
1,650 lb $330 State of Georgia, Glasgow
1 cs $21 Santiago, Cienfuegos
15 cs $33 Minister of Marine, Melbourne
3,353 lb $160 C Lafite, Bordeaux
527 lb $22 W M Beazley, Macoris
25 cs $53 H S Jackson, Mossel Bay
100 cs $235 H S Jackson, East London
1 cs $108 Servia, Liverpool
3,383 lb $118 La Bretagne, Havre
3,849 gl $96 Saratoga, Havana

MATCHES
11 cs $71 Mary Culmer, Nassau
1 cs $14 Muriel, St. Kitts
25 cs $250 America, Bridgetown

NUTMEGS
1 cs $18 Andes, Pt au Prince

OCHER
6 bbls $21 Manson, San Juan

OIL
500 gls $250 La Champagne, Havre

OIL CAKE
2,264 lb $39 S of Georgia, Glasgow
264,339 lb $5,285 P Caland, Amsterdam
90,000 lb $900 Noordland, Antwerp
629,035 lb $9,137 Ludgate Hill, London
400,000 lb $6,000 Anchoria, Glasgow
670,518 lb $6,760 Santiago, Hull

OIL CASTOR
1 cs $6 Santiago, Nassau
160 gls $115 Chas Morand, Arecibo

OIL CODLIVER
16 bbls, Simeon, Auckland
1 cs $8 Santiago, Nassau
2 cs $43 Harold, San Juan
2 pgs $90 C of Para, San Jose
96 pg $1,572 Saratoga, Mexican Pts
28 gl $24 Murill, Bardadoes

OIL COTTONSEED
96 gls $44 Simeon, Auckland
48 gls $25 A Campbell, Vicques
1,250 gls $653 Anchoria, Glasgow
10,000 gls $5,000 Polaria, Hamburg
102 gls $65 Muriel, Trinidad
258 gls $128 Muriel, Barbadoes
1,869 gl $976 Munriel, Br. W. I.
10 gl $8 Muriel, Barbadoes

OIL COTTONSEED, CRUDE
497 gls $207 Saratoga, Mexican ports

OIL ESSENTIAL
2 cs $55 Portia, Halifax

OIL LARD
960 gls $774 Simeon, Auckland
247 gls $193 A Campbell, Vicques
200 gls $190 V L Stafford, Pt Natal
1,150 gls $1,112 H S Jackson, East London
80 gls $32 H S Jackson, Morsel Bay
100 gl $81 Muriel, St. Lucia
150 gl $98 Cearense, Para
228 gl $178 Prins Willem I, Demerara

OIL LINSEED
200 gls $140 A E Rickersan, Pt au Prince
77 gls $47 A Campbell, Vicques
122 gls $74 Trinidad, Bermuda
150 gl $77 Prins Willem I, Carupano
10 gl $6 Andes. Pt au Prince
48 gl $30 Andes, Jeremie

OIL LEMON
1 cs $7 Trinidad, Bermuda

OIL LUBRICATING
1,980 gls $645 Simeon, Auckland
20,519 gls $3,281 La Champagne, Havre
200 gls $72 Southern Cross, Sydney
285 gls $228 Lahn, Bremen
1,076 gls $290 S of Georgia, Glasgow
83,948 gls $13,184 Spain, L'pool
650 gls $132 Ch Lafite, Bordeaux
101 gls $50 Fairfield, Pt au Prince, Hayti
5,000 gls, $800 P Caland, Amsterdam
24,707 gls $2,429 Noordland, Antwerp
8,204 gls $1,755 Anchoria, Glasgow
10 gls $10 Trinidad, Bermuda
101 gls $16 C of Para, Panama
3,759 gls $1,848 La Bretagne, Havre
500 gls $300 Polaria, Hamburg
5,500 gls $970 Santiago, Hull
1,308 gls $494 Saratoga, Havana
2,659 gls $1,595 Arizona, Liverpool

OIL MEAL
157,000 lb $2,281 Murill, Br W I
900 lb $16 Murill, St Lucia
7,500 lb $119 Murill, St Kitts
2,250 lb $38 Murill, Montserrat
53,500 lb $813 Murill, Antiqua
37,500 lb $600 America, Bridgetown
3,750 lb $56, Prins Willem I, Trinidad
37,500 lb $575 Murill, Baradoes

OIL OLEO
348,836 lb $31,490 P Caland, Amsterdam

OIL ROSIN
270 gls $18 Trinidad, Bermuda

OIL SWEET
10 gls $6 Santiago, Nassau

OIL SANDALWOOD
1 cs $25 Cearense, Ceara

PARAFFINE WAX
22,452 lb $825 Ludgate Hill, London

PARAFFINE
2,946 lb $132 Manson, St Johns, P R

PEPPER
4 bgs $80 Harold, St Johns, P R
2 bgs $20 Fairfield, Pt au Prince
5 bgs $97 Cearense, Ceara
15 bgs $271 Harold, Arecibo
10 bgs $77 Andes, Jeremie
5 bgs $78 Muriel, Trinidad

PEARL ASH
6 bbls $180 P Caland, Amsterdam
10 bbls $300 La Bretagne, Havre

PETROLEUM JELLY
24 cs $750 S of Georgia, Glasgow
1 cs $30 Harold, San Juan
1 cs $5 Muriel, St St Kitts
1 cs $11 Muriel, Trinidad
3 cs $17 Muriel, Domenica

PITCH
4 bbls $6 Manson, San Juan
20 bbls $28 Portia, St John's N F
3 bbls $5 Manson, St Johns, P R
5 bbls $33 Prins Willem I, Demerara

ROSIN
30 bbls $90 Santiago, Cienfuegos
440 bbls $868 Simon, Auckland
137 bbls $318 Southern Cross, Sydney
130 bbls $374 Cearense, Para
4 bbls $7 Santiago, St Jago
3 bbls $9 A Campbell, Vicques
506 bbls $600 Ludgate Hill, London
4 bbls $30 Saratoga, Mexican Pts
801 bbls 2,183 Aques, Montevideo
2 bbls $5 Muriel, Antigua
60 bbls $76 Cearense, Para
500 bbls $1,000 Cearense, Pernambuco
6 bbls $7 Harold, St John, P R

ROSE LEAVES
2 cs $250 Celtic, Liverpool

SENNA
1 bg $6 Santiago, Nassau

SOAP
16 bxs $8 Santiago, Santiago
1,650 bxs $957 A E Rickerson, Pt au Prince
129 bxs $424 Simeon, Auckland
14 bxs $112 Southern Cross, Sydney
2 cs $11 Portia, St John's, N F
8 bxs $24 Santiago, Nassau
1,104 cs $1,268 Fairfield, Pt au Prince
32 bxs $101 Trinadad, Bermuda
8 bxs $33 Trinidad, Hamilton
1 cs $23 C of Para, Guatamala
4 cs $25 C of Para, Amapala
45 cs $126 Mary Culmer, Nassau
1,400 bxs $812 Prinz Willem I, Pt au Prince
5 cs, $86 Saratoga, Havana
63 bxs $378 Muriel, Antigua
1 cs $35 Cearense, Ceara
352 bxs $422 Cearense, Para
150 bxs $87 Andes, Aux Cayes
6,350 bxs $3,103 Andes, Pt au Prince
1,050 bxs $571 Andes, Jeremie
1,450 bxs $481 Andes, Petit Goaves
500 bxs $261 Andes, Jacmel
31 bxs $183 Muriel, Barbadoes
10 cs $15 Harold, St John, P R

SODA ASH
1 cs $25 Saratoga, Mexican Pts

SODA CAUSTIC
1 dm $18 Saratoga, Mexican Pts

SPERMACETI
946 lb $312 La Champagne, Havre

SPONGE
2 cs $10 Fairfield, Pt au Prince, Hayti
21 bls $978 Servia, Liverpool

STARCH
1 bbl $13 Portia, Halifax
5 bbls $35 Santiago, St Jago
50 cs $79 Harold, San Juan
20 bxs $27 A Campbell, Vicques
600 bxs $900 P Caland, A'dam
1,100 bxs $1,452 DeRuyter, Antwerp
17 bxs $46 Trinidad, Bermuda
7 bxs $11 Trinidad, Hamilton
2 cs $6 C of Para, Amapala
22 bxs $47 Mary Culmer, Nassau
10 cs $15 Harold, St John, P R
20 bbls $169 Harold, Mayaguez

TALLOW
55,888 lb $2,964 Celtic, Liverpool
1,535 lb $101 Wm Beazley, Macoris
660,080 lb $26,403 P Caland, A'dam
102,848 lb $6,657 Saratoga, Mexican Pts
1,934 lb $125 Prins Willem I, Semerara

TAR
15 cs $24 Saratogo, Havana
3 bbls $16 Santiago, Santiago
6 bbls $17 Manson, San Juan
5 bbls $15 Edith Golden, Montego Bay
6 bbls $31 Phebe, Mayaguez
4 bbls $12 Manson, St John's P R
2 cs $6 Saratoga, Mexican Pts
40 bbls $120 Muriel, Trinidad
40 bbls $120 Muriel, Trinidad

TURPENTINE
197 gls $93 Santiago, Santiago
960 gls $508 Minister of Marine, Melbourne
65 gls in our last, per Ailsa to Savanilla, should be 96 gls $61
120 gls $64 A E Rickerson, Pt au Prince
3,946 gls $1,646 Simeon, Auckland
4,416 gls $2,223 Southern Cross, Sydney
200 gls $112 Cearense, Para
1,556 gls $739 Portia, Halifax
436 gls $205 Santiago, St Jago
960 gls $508 Minister of Marine, Melbourne
44 gls $20 Harold, Mayaguez
80 gls $40 Fairfield, Pt au Prince
10 gls $3 Wm Beazley, Macoris
50 gls $26 Trinidad, Bermuda
730 gls $390 V L Stafford, Pt Natal
459 gls $290 H S Jackson, East London
48 gls $23 Mary Culmer, Nassau
252 gls $124 Muriel, Trinidad
180 gls $91 Saratoga, Havana
20 gls $10 Saratoga, Mexican Pts
670 gls $362 Cearense, Para
100 gls $54 Harold, Arecibo
10 gls $5 Harold, San Juan
15 gls $9 Andes, Jeremie

VARNISH
330 gls $326 Simeon, Auckland
30 gls $33 Cearense, Para
10 gls $7 Harold, San Juan
258 gls $150 Ludgate Hill, London
50 gls $30 Saratoga, Mexican Pts
200 gls $198 V S Stafford, Pt Natal
100 gls $130 H S Jackson, East London
230 gls $1,111 La Bretagne, Havre
127 gls $99 Saratoga, Havana
6 gls $14 Cearense, Para
30 gls $30 Harold, St John, P R
30 gls $41 Harold, San Juan

WHITING
14 bbls $25 Saratoga, Havana

WHITE LEAD
3 cs $23 A Campbell, Vicques
15 kgs $28 Trinidad, Bermuda

ZINC OXIDE
1 cs $8 A Campbell, Vicques

New Orleans Exports.

For week ending Nov. 1.

COTTONSEED
125 sks, Norfolk, L'pool

COTTONSEED MEAL
11,031 sks, Nantes, Antwerp

OIL CAKE
1,280 sks, Washington City, Liverpool
1,173 sks, Legislator, L'pool
700 bgs, Ocean King, Bremen

SOAP
80 bxs, Macgregor, Puerto Cortez
10 bxs, S Pizzati, Truxillo

Savannah Exports.

For week ending Nov. 2.

COTTONSEED
125 scks, Norfolk, Liverpool

PHOSPHATE ROCK
40 tons, Serra. Liverpool

Boston Exports.

For week ending Nov. 2, 1888.

ACID
200 cbys, Grace Bradley, Demerara

CANDLES
5 cs, Diamond, St Pierre

OIL
30 bbls, Cleopatra, Annapolis

OIL LUBRICATING
40 bbls, Bulgarian, L'pool

OIL SALAD
20 bbls, Kansas, L'pool

OIL CAKE
1,375 bgs, Catalonia, L'pool

PAINT
2 bbls, 1 hf bbl, Cleopatra, Annapolis

TALLOW
200 tcs, Bulgarian, L'pool

New York to San Francisco.

Am str C of Para, cleared Nov 2, via Aspinwall.
Ocher—10 cks, $688
Oil Lard—1,000 gls, $850
Potash—2 cks, $93
Soap—5 pgs, $84

Philadelphia Exports.

For week ending Nov. 2

OIL LUB
400 bbls, Manitoban, Glasgow
1,000 bbls, British Prince, Liverpool

OIL CAKE
2,600 bgs, British Prince, Liverpool

STEARINE
61 tcs, British Prince, Liverpool

TALLOW
175 hhds, British Prince, Liverpool

Baltimore Exports.

For week ending Nov. 1.

BARK EXTRACT
50 bbls, Nova Scotian, L'pool
600 bxs, Donau, Bremen

OIL CAKE
998 sks, Lord Lansdowne, Belfast

ROOTS MEDICINAL
25 bbls, Donau, Bremen

San Francisco Exports.

For week ending Oct. 24.

BARK
1,333 bgs, J McDonald, L'pool

GASOLINE
15 dms, S G Wilder, Honolulu

GINSENG
16,544 lb, Belgic, China

OIL LARD
500 gls, Undaunted, Santa Rosalia

OIL LUBRICATING
155 gls, Umatilla, Victoria

OPIUM
1,298 lb, Belgic, China

ORCHILLA
24 bbls, J McDonald, L'pool

PAINT
8 pgs, S G Wilder, Honolulu
8 pgs, Umatilla, Victoria

QUICKSILVER

60 ℔ , Belgic, China
10, ℔ Zealandia, New Zealand

SOAP

40 b xs, S G Wilder, Honolulu

STARCH

5 cs, Zealandia, Honolulu

WHITE LEAD

360 ℔, A C Hazeltine, Juluit

TOTAL PACKAGES AND VALUES OF NEW YORK IMPORTS,

As returned by the Custom House for the week ending Nov. 2, 1888:

	Pkgs.	Val.
Glass, plate	127	$11,716
Glass, window	9,078	10,374
Looking glass plate	238	46,075
Acid, boracic	35	1,989
Acid, carbolic	87	1,682
Acid, picric	15	290
Acid salicylic	8	1,190
Acids, all other	21	1,396
Aniline colors	373	25,982
Aniline salt	20	667
Ammonia, carbonate of	1	22
Ammonia, muriate of	15	621
Argols	327	24,260
Alum	370	884
Albumen	25	1,27
Alizarine	63	3,940
Asphalt	....	3,917
Bark	35	752
Barytes, sulphate	119	412
Bleaching powder	60	859
Bronze powder	....	10,655
Butter, cacao	65	3,072
Chalk	....	341
Calomel	10	313
Chemical salts	51	475
Cobalt	4	2,051
Cudbear	1	64
Cuttlefish bone	9	80
Dextrine	55	686
Dyewood extract	45	1,245
Fish sounds	10	280
Flowers, chamomile	70	922
Gelatine	46	1,703
Glucose	20	282
Glycerine	223	16,959
Gum animi	20	2,887
Gum chicle	34	1,452
Gum copal	336	9,159
Gum camphor	1,746	37,629
Gum kauri	4,096	77,396
Gum, shellac	451	10,575
Gum senegal	577	38,9 2
Gum tragacanth	69	3,742
Gum, other	18	201
Glue	332	5,283
Indigo	10	2,857
Indigo auxiliary	14	730
Indigo, extract of	17	538
Juniper berries	778	1,612
Kieserit		559
Leeches	9	92
Madder	10	679
Manuring salt	....	7,995
Nutgalls	...	7,995
Archil liquor	36	2,572
Oxide of zinc	554	4,391
Oil, aniline	30	3,859
Oil, cod	70	723
Oil, lavender	47	4,965
Oil, olive,	3,497	16,308
Oil, rapeseed	10	253
Oil, rose	12	11,302
Oil, other essential	2	404
Opium	50	12,685
Paints, unspecified	....	9,503
Paint, Berlin blue	2	95
Paint, drop black	13	186
Paint, iron oxide	58	655
Paint, ocher	122	702
Paint, orange mineral	104	2,735
Paint, sienna	25	408
Paint, umber	166	547
Paint, Venetian red	200	411
Paidt, white lead	4	103
Potash, chlorate	130	3,797
Potash, prussiate	20	1,370
Phosphorus	75	4,0 8
Quinine	22	6,545
Regulus antimony	50	2,853
Root, orris	2	44
Root, sarsaparilla	89	1,254
Saltpeter	1,676	8,855
Sage leaves	1	7
Soda ash	1,089	16,529
Soda, bichromate	253	13,335
Soda, caustic	780	6,469
Soda, hypo of	362	229
Sponges	558	6,997
Sumac, extract of	25	407
Ultramarine	14	539
Vanilla beans	1	8
Vanillin	1	815
Varnish	13	957
Other drugs	....	17,776
Bristles	111	18,862
Brandy	888	19,834
Bitters	1,026	5,618
Cordials	342	2,193
Gin	134	1,227
Ginger ale	100	497
Mineral waters	4,841	13,567
Rum	110	1,065
Whiskey	976	17,959
Wines	5,335	70,061
Aluminum	1	1,430
Dutch metal	6	1,562
Lead, pigs	6,050	26,379
Cassia	1,000	1,385
Chillies	10	74
Cloves	260	5,817
Clove stems	184	587
Nutmegs	409	12,921
Cork wood	....	3
Empty barrels	....	37,696
Fustic	....	1,848
Logwood, M lbs	1,957	18,666
Brushes	....	15,794
Candles	....	43
Clay	....	442
Corks	....	5,117
Cocoa, bgs	1,402	30,317
Cocoa, preparations of	17	597
Guano	. .	14,664
Hops	261	28,848
Matches	150	1,013
Musk	1	909
Plaster	....	1,143
Portland cement	23,286	23,604
Perfumery	147	15,051
Polishing powder	....	19
Sago	484	2,931
Sago flour	793	1,403
Seed, annatto	34	205
Seed, canary	2	10
Seed, caraway	100	462
Seed, castor	486	1,517
Seed, celery	26	317
Seed, poppy	75	565
Seed, rape	65	368
Linseed	5,539	21,686
Soap	16	1,981
Soap, castile	718	2,266
Soap stock	196	9,671
Stone, pumice	....	366
Tapioca	938	5,736
Wax	....	2,019

GOODS ON THE WAY TO THE UNITED STATES BY SAIL.

Calcutta

TO NEW YORK.

Gilcruix, 3,706 bgs saltpeter, 1,106 bgs cutch, 21,871 bgs linseed, 50 cs shellac, 75 cs button-lac, 1,000 bgs ginger

Exporter, 4,152 bgs cutch, 3,000 bgs linseed, 300 cs castor oil

Garfield, 1,338 bgs saltpeter, 500 bgs cutch, 28,347 bgs linseed, 1,499 bgs ginger

Cirgenti

TO PHILADELPHIA

Maria Luigia, 640 tons thirds brimstone
Olive Speciosa, 800 tons thirds brimstone
Peppina M, 720 tons thirds brimstone

TO SAVANNAH

S Anna Maria, 600 tons seconds brimstone

Singapore

TO NEW YORK

Maccabeo, 7,564 pls gambier, 2,526 pls pearl tapioca, 842 pls flake tapioca, 1,255 pls black pepper, 841 pls sago flour, 83 pls gum damar, 1,614 pls gum copal

Tobibue, 9,661 pls gambier, 840 pls sago flour, 419 pls tapioca flour, 1,262 pls pearl tapioca, 1,935 pls flake tapioca, 682 pls gum copal, 414 pls cube gambier.

TO BOSTON

Hoogly, 5,041 pls gambier, 840 pls sago floyr, 421 pls cube gambier, 100 pls pearl sago, 672 pls pearl tapioca, 336 pls flake tapioca, 757 pls black pepper, 233 pls gum copal

West Coast South America.

TO NEW YORK

John Baizley, 7,000 bgs nitrate soda
John Gill, 12,000 bgs nitrate soda
Madura, 9,000 bgs nitrate soda
S P Hitchcock, 23,000 bgs nitrate soda

TO BOSTON

Independence, 8,000 bgs nitrate soda

TO HAMPTON ROADS

Osberga, 13,000 bgs nitrate soda
St Marks, 20,000 bgs nitrate soda

TO PHILADELPHIA

Chesebrough, 15,000 bgs nitrate soda

RECORD OF VESSELS.

Port & Name.	Sailed.	Last Reported.
Calcutta.		
Gilcruix	July 20..	
Exporter	Aug 18..	
Garfield	Aug 20..	
Girgenti.		
M Luigia	Aug 8..	
O Speciosa	Aug 22..	
Peppina M	Aug 30..	
S A Maria	Aug 14..	
Singapore.		
W Anton	June 15..	
Maccabeo	Aug 15..	
Hoogly	Aug 16..	
Tobique	Sept 7..	
W. C. South America.		
Independence	July 15..	
J Baizley	July 17..	
John Gill		Loading, Aug sailing
Osburga		Loading, Aug sailing
Madura		Loading, Aug sailing
S P Hitchcock		Loading, Sept sailing
Chesebrough		Loading, Sept sailing
St Marks		Loading, Sept sailing

Recent Patents.

391,819. APPARATUS FOR BORING OIL FOR FUEL. Issued Oct. 30, 1888.

Claim.—1. In combination with the fuel supply pipe, the burner composed of a casing connected with said pipe and provided with a contracted outlet opening, the adjustable hollow stem in said casing, the perforated cap carried by said stem outside said opening, and the collar carried by said stem inside said opening, constituting a valve which closes as the stem is raised, the said cap having its under side around the stem imperforate to beyond the edge of the said opening, substantially as described.

2. The combination, with a burner and its fuel supply pipe, of two upright shells of different diameter and about the same height, both surrounding the burner and one surrounding the other, and the inner of said shells being a straight tube provided over the greater part of its length with vertical openinings in the upright wills thereof, substantially as described.

3. The combination, with two shells of different diameter and about the same height arranged one inside the other, of the fuel supply pipe and a burner attached to said pipe and arranged in the inner shell above the bottom or base thereof, the said inner shell having air-tight openings both above and below the burner, and the said burner having a central hollow stem which opens at its lower end into the air space in the lower part of the inner shell, substantially as described.

4. The combination, with the two shells, the fuel-supply pipe, and the burner having an adjustable vertical stem, a slot and pin for raising and lowering said stem, and a flame-regulator carried by said stem, of the crank-arm at the lower end of said vertical stem, the horizontal link connected at its inner end with said crank-arm and passing through the walls of said shells, and the horizontal rock-shaft having an arm connected with said link for moving the same endwise to turn the said stem and adjust the said flame-regulator, substantially as described.

5. The combination, with a burner, its fuel-supply pipe and a vaporizing-coil above the burner, of a plate-deflector of larger diameter than said coil interposed between the latter and the burner, and a pendent support to whose lower end the deflector is fastened and whose upper end is fastened to the said coil, leaving an air space, substantially as described.

6. The combination with a burner, its fuel-supply pipe and the vaporizing-coil of the deflector in the form of an inverted cone provided with a downwardly-projecting annular flange interposed between the coil and the burner, substantially as described.

Sulphur in the United States.

As nearly all of the sulphur of commerce comes from Sicily few persons are aware that immense deposits of this element are found in the United States. Indeed, in the Territory of Utah occurs what is probably the richest and largest of the known sulphur deposits in the world. It is located 200 miles south of Salt Lake City, is about 2,000 feet square and of unknown depth, although shafts have been sunk 60 feet without reaching the bottom. The richest Sicilian ores carry 30 to 40 per cent of sulphur and the common ores only 20 to 25 per cent, while the poorest ore from this Utah deposit contains 40 per cent and the supply of 10 per cent ores is said to be inexhaustive These figures are from analyses made at the Case School of Applied Science. Numerous smaller deposits have also been discovered in California, New Mexico and Colorado, and in 1872 there was found, about 30 miles to the south of the Union Pacific Railroad and 900 west of Omaha, a great hill of almost pure sulphur. Despite these facts the United States produced in 1880, according to the census reports, only about 600 tons of this mineral, while over 100,000 tons were imported. Sicilian sulphur is brought to this country as ballast, and consequently at a cost for transportation so much below railroad freight charges to the East that until a local demand springs up the United States is hardly likely to reap the benefit of its own deposits.—*Paper Trade Journal.*

Recovering Sulphurous Acid.

An ingenious method of recovering the sulphurous acid blown off from digesters in the sulphite process, and of obtaining at the same time a plentiful supply of hot water, has been made the subject of a German patent. The mixture of gas and steam from the digesters is led into the bottom of a tower, which may be of wood, lead lined, or of heavy sheet lead supported by a framework. The lower half of the tower is fitted with fireclay trays, with passages between them for the gas and steam, the upper portion of the tower being filled with coke. As the mixture of gas and steam ascends it meets a shower of water from a sprinkler in the top of the tower. This condenses both steam and gas, but on running down they meet again the ascending steam and sulphurous acid, with the result that the descending mixture is soon heated to 212° at which point all of the sulphurus acid is again set free as gas. After the tower has been in operation for some time the temperature of the condensing water, as it arrives at the bottom of the tower, will rise to 212°, when it may be drawn off for washing, &c. On the other hand, the temperature of the sulphurous acid grows lower as it nears the top of the tower, and by regulating the stream of water delivered at the top of the tower, so that there is not sufficient water to condense the large amount of gas, a continuous stream of sulphurous acid gas will be delivered at the top of the tower, and may be led away to be used in making fresh liquor in the same manner as though it came direct from the furnaces.—*Paper Trade Journal.*

An Oil Region Dream.

A remarkable case of the realization of a dream is related by L. H. Thorp, a well-known business man of Oil City. Some five years ago Mr. Thorp, who was then interested in oil matters, had a dream in which he saw distinctly a very peculiarly-formed piece of land, upon which he dreamt that he located five wells, one at each corner and the fifth in the center upon the top of a hill.

Nothing more was thought of the matter until about six months afterwards when Mr. Thorp again dreamed the same thing with greater distinctness of detail. This time he was somewhat impressed, but business cares soon drove the dream from his mind and it was forgotten again until two years ago, when a third time he had the same dream. When he awoke he made up his mind that if he ever came across such a tract of land he would possess himself of it. Time passed and one day while at Greensburg he drove over to Mt. Morris, in Greene county, and the moment he came in sight of the place the dream was recalled. There were the identical houses along the road, the hill rising abruptly to a sharp peak, the two streams of water at its base, and everything he had first seen in the dream years before.

Upon going to the spot where his first well had been located in his dream to his surprise Mr. Thorp found that George P. Hukill had drilled his first well, which proved a very good one. The second well had also been put down by Hukill at the place dreamed of, but was dry. Carrying his investigation still farther, Mr. Thorp climbed the hill and went directly to the place where the fifth well should be; but he tried to buy or lease the land without avail. Mr. Thorp had never before been in the vicinity of Mt. Morris and did not know there was such a place until the visit, which recalled the dream.—*Pittsburg Gazette.*

Commerce of Belgium.

REPORT OF U. S. CONSUL J. H. STEWART.

From official statistics just issued I am enabled to submit the following short report upon the commercial movement of Belgium with foreign countries, and the United States in particular, during the first six months of the present year, as compared with the same period of 1887.

In the importations from all countries there was an increase of 7 per cent. over the same period of the preceding year, and in the exportations for the same time there was no material change.

The following table shows the principal differences in value and the increase in some importations for the six months of 1888, as compared with the same period of 1887:

INCREASE IN IMPORTATIONS.

	Francs.
Soda	11,845,000
Lead, unworked	799,000
Petroleum	2,561,000
Oil seed	10,842,000
Rosin and bitumen	3,388,000

The following table shows the principal differences in value and the increase in some exportations for the six months of 1888, as compared with the same period of the preceding year:

INCREASE IN EXPORTATIONS.

	Francs.
Soda	1,043,000
Other chemical products	1,916,000
Grease	1,648,000
Lead unworked	886,000
Oils, vegetable alimentary	1,037,000
Oil seed	788,000

IMPORTATIONS FROM THE UNITED STATES.

In the importations the United States were interested as follows:

Grease.—The total imports during the six months of 1888 amounted to 15,060 tons, an increase over the same period of 1887 of 511 tons. Of the amount, the United States furnished 7,185 tons, an increase of 803 tons, or 12½ per cent.

Oils, vegetable, not alimentary.—Here the total imports have decreased from 12,664 tons to 9,979 tons, or over 20 per cent. This decrease was borne, in large proportion, by the United States, the same having been from 2,809 tons in 1887 to 1,995 tons in 1888, a decrease of 814 tons, or 29 per cent.

Oil-seed.—A marked increase is shown for 1888. From 46,581 tons during the six months of 1887 the rise has been to 85,304 tons, a difference in favor of 1888 of 38,722 tons, or nearly 85 per cent. From the United States the receipts were insignificant in 1888, while during the six mouths of 1887 1,045 tons were received thence. The increase came from England, India, and Russia.

Petroleum.—The total imports were 75,969 tons during the six months of 1888, against 59,591 tons during the same period of the year preceding. Of that quantity 61,121 tons came from the United States, or 90 per cent. The imports of Russian petroleum more than doubled during the period named, say from 5,508 tons in 1887 to 12,674 tons in 1888.

Rosin and bitumen.—There were received during the six months of 1888 63,838 tons, against 51,228 tons in the corresponding period of the year preceding, a gain of 12,550 tons, or nearly 15 per cent. Here the United States had an increase of 663 tons, participating in the total imports of this article to the extent of 11 per cent. in 1888, and 12½ per cent. in 1887.

Starch.—The importations of starch amounted to 1,890 tons during the firtt six months of 1888, which was an increase over the corresponding period of 1887 of nearly 100 tons; but the receipts from the United States has nearly tripled, having risen from 60 to 170 tons, the latter being nearly 10 per cent. of the total imports of this article.

Syrups and Molasses for Distilling Purposes.—For the half year of 1888 importations amounted to 9,783 tons, against 9,341 tons during the corresponding period of 1887, showing a slight increase for 1888. Here the United States participated largely, 2,948 tons, or over 30 per cent., having been received thence in 1888, and 4,387 tons, or nearly 50 per cent., in 1887. Holland is our principal competitor in this article, the imports from that country having increased from 3,397 tons in 1887 to 5,402 tons in 1888, a difference in favor of 1888 of nearly 2,000 tons.

Chemical Products.—The exportations aggregated 7,900 tons in the six months of 1888 and 5,992 tons the year before, respectfully 438 and 592 tons having gone to the United States.

Looking-glasses and Mirror.—Exports to the value of 3,252,000 francs were made during the first half year of 1888, against 3,581,000 francs the corresponding half year of 1887, a slight decrease. The United States took about one-third of the total exportation both years.

Ordinary Glassware.—The exports amounted to 5,321 tons during the first half year of 1888 being a slight decrease as compared with the corresponding period of 1887. In the exportation to the United States of this article, however, there was a very large increase, the same having been from 314 tons for the six months of 1887 to 1,193 tons, a difference in favor of the half year of 1888 or 879 tons.

Window Glass.—This is an article that is very extensively manufactured in Belgium, and its exportation is increasing from year to year. During the half year of 1888 there were exported 59,208 tons, against 57,034 tons the corresponding half year of 1887, showing an increase of over 2,000 tons. The United States had respectively 16,548 and 14,742 tons, an increase for 1888 of over 1,800 tons, or 12½ per cent., and more than any other country.

Hops.—There were 635 tons sent out during the half year of 188, against 1,125 tons for the corresponding period of the preceding year, a derease of 490 tons, or nearly 50 per cent. In the exportation of this article to the United States the decrease has oeen in the same proportion,it having fallen off from 181 to 96 tons.

Oxide of Zinc.*

BY H. BELCHER THORNTON, F.C.S.

I was led to an investigation of the matter which forms the subject of this paper from two considerations—first, because in my capacity of demonstrator of practical chemisty in the Liverpool School of Pharmacy I have found that the pupils when analysing what was supposed to be oxide of zinc have invariably reported it as carbonate; and second, because the chief process ordered by the British Pharmacopœia, supposing large quantities of material to be acted upon, is, in the writer's opinion, calculated to produce an o ide not entirely free from the carbonate. The results of analysis of a number of samples obtained from various sources seem to confirm this opinion.

The sample which the Liverpool students had returned as carbonate was subsequently submitted to a preliminary analysis in order to determine the accuracy or otherwise of their working. Upon the addition of nitric acid a distinct effervescence was set up. A larger quantity of the substance was taken to which acid was added, and the evolved gas was passed into lime water, where the carbon dioxide was precipitated as carbonate of calcium, proving conclusively that CO_2 was evolved. Some of the gas was decanted into a test tube and its presence further confirmed by its action upon a burning match. The behavior of this sample of supposed oxide of zinc was contrary to the description of it in the British Pharmacopœia where it distinctly states that the substance "dissolves without effervescence in dilute nitric acid."

This being a question affecting pharmacy and pharmacists was deemed worthy of the attention of a society like yours having for one of its objects the discussion of matters bearing upon pharmaceutical affairs.

It was therefore decided to investigate a number of samples with the object of finding (1) whether the carbonate was a usual or an unusual impurity, (2) to estimate the amount of carbonate present, and (3) to see if the specimens conformed in other respects to the description given of them in the British Pharmacopœia.

There is not much that is historical connected with our subject. Its origin dates back over a century; and its discovery was made by one Hellot in the year 1735.

Various processes of manufacture have been adopted from time to time, although, as you are aware, there is a native oxide of zinc to be found in America, which is, however, rendered impure by the presence in it of oxides of manganese and iron. The manufacture, according to the London College, was to be carried out as follows: Sulphate of zinc and sesquicarbonate of ammonia were to be dissolved in separate quantities of distilled water, the solutions strained and mixed. The resulting precipitate was to be washed frequently with water, and finally burnt for two hours in a strong fire. A similarity of idea prevailed in the method adopted by the Edinburgh College. In both cases double decomposition took place, a portion of carbonic acid escaped and hydrated carbonate of zinc and sulphate of ammonia remained, the former precipitated, the latter in solution. The carbonate was decomposed by subsequent ignition and the oxide remained. The Dublin College directed the oxide to be made from the metal zinc and obtained by sublimation, "the whitest part of the sublimed powder being reserved for use."

The British Pharmacopœia of to-day makes mention of two processes being somewhat similar in style of treatment as those previously mentioned. In the preparation from the carbonate some idea is given as to when the process ceases, for, says our authority, "expose it to a dull red heat until a portion taken from the center of the contents of the crucible and cooled no longer effervesces when moistened with water and dropped into dilute sulphuric acid."

The second method, as officially stated, is "oxide of zinc may also be obtained from metallic zinc by combustion." Both processes have their drawbacks, as if hurriedly prepared by incineration of the carbonate the product is liable to consist of a mixture of oxide and carbonate; and if prepared by combustion, minute particles of metal zinc may contaminate the result as regards the purity of this substance.

In an edition of Pereira's 'Materia Medica and Therapeutics,' dated 1842, we find this statement: "The substance met with in shops under the name of oxide of zinc is in reality a carbonate of this metal, and therefore effervesces on the addition of an acid." In a more recent work, entitled 'Commentary on the British Pharmacopœia,' and written by Walter G. Smith, M. D., published in 1875, we find an observation therein as follows, "Commercia specimens are often impure from faulty preparation and contain undecomposed carbonates and other basic salts of zinc." The literature on the subject does not seem to be very extensive, but these two quotations are taken in support of my views.

The first step in conducting the analysis was to find some reliable means for estimating the carbonate present. Two or three different methods were tried, and those furnishing the most concordant results adopted.

The decomposition of the carbonate present by nitric acid in a mixture of the sample with a little water, gently warming the solution, passing the gas through a drying tube to absorb any moisture present, and conducting the carbon dioxide into potash bulbs, was first tried. Weighing the potash bulbs with absorbed gas separately served to check the result. It was fonnd, however, that the results were as equally consistent when the potash bulbs were not employed, and only the loss estimated, and this modified form was subseqnently adopted.

Another process suggested by Mr. Ward seemed also to yield fairly consistent results. This was to heat the sample in a hot air oven at about 105° centigrade until a constant weight was obtained. The sample was then ignited, removed to a dessicator and weighed when cold. This presupposes that the molecule of water present in the carbonate $(ZnCO_3(Zn2HO)_2{\cdot}H_2O)$ is driven off at the former temperature. Processes requiring special apparatus were not attempted, as the analysis would be sufficiently accurate for our purpose by the use of the means previously specified.

Each sample was submitted to at least two analyses at different times and by different methods, and the mean of these observations is here stated. The sample yielding such a remarkable percentage of carbonate was four times analyzed by the writer and once by a friend independently, and we differed in our results only by a low decimal figure.

TABULATED RESULTS OF ANALYSIS.

Sample.	No. of estimates.	Mean of oxide taken.	Mean of CO_2 evolved.	Mean of CO_2 per cent.	Mean percentage of $(ZnCO_3, (Zn2HO)_2, H_2O$.
A	5	·943	·02575	2·7285	21·145
B	3	·86225	·017	1·9735	15·2945
C	2	·903	·016	1·6115	12·489
D	2	1·153	·01675	1·454	11·2565
E	2	1·354	·01125	·831	6·4295
F	3	1·7585	·01075	·831	4·7305

From the results of these analyses we may conclude that the oxide of zinc as generally met with in commerce does contain an appreciable quantity of carbonate.

As to the general character of oxide of zinc the British Pharmacopœia states: A soft, nearly white tasteless powder, becoming pale yellow when heated. Dissolved in nitric acid it should form a solution which is not affected by chloride of barium, nitrate of silver or diluted sulphuric acid, and give with carbonate of ammonia a white precipitate which dissolves entirely without color in an excess of the reagent, forming a solution which is precipitated white by sulphydrate of ammonium.

The samples under discussion presented a uniformly consistent adhesion to the observations of the British Pharmacopœia as regards their general characters. They were all soft, nearly white, tasteless, odorless powders, turning yellow when heated.

A solution in nitric acid to which chloride of barium was added showed traces of sulphates in samples A, C, and E. Nitrate of silver produced a slight cloudiness in samples B, C, and D. All the samples were unaffected by diluted sulphuric acid, and reacted as described in the B. P., with carbonate and sulphydrate of ammonium.

In conclusion, I would venture to express an opinion that the oxide—more especially if exposed either in a damp state or in a moist atmosphere—is capable of absorbing some of the carbonic acid present in the air. This view seems somewhat strengthened by the following incident:—This opinion was mentioned to a friend, who stated that in his cellar there had been a sample of oxide of zinc belonging to a former occupant of the shop for many years with the cork loosely fitting the bottle. Some of this was brought to me, and a quantitative analysis revealed the fact that a large proportion of carbonate was present. This power to absorb carbonic acid gas from the atmosphere is probably the cause of the reminder in the British Pharmacopœia that the oxide after preparation is to be transferred "to stoppered bottles."

DISCUSSION.

At the close Mr. A. C. Abraham in proposing a vote of thanks to Mr. Thorton for his paper, said that he was not surprised to find that oxide of zinc frequently contained appreciable quantities of carbonate; he had himself, some time time ago, tested a sample of what was advertised as a specially pure article, and found that id contained a large proportion of carbonate. He was, however, somewhat surprised to find that none of the samples tested were pure.

Mr. M. Conroy said that he had much pleasure in seconding the vote of thanks to Mr. Thornton. He had himself tested very many samples of oxide of zinc, and in almost every case found them practically free from carbonate. He had, however, always tested the samples direct from the manufacturers, and was inclined to think that they must subsequently CO_2, as suggested by Mr. Thornton.

The discussion was continued by Mr. J. S. Ward, who said he thought it far more likely that the carbonate present was the result of absorption of CO_2 by an originally pure oxide than that it was a consequence of incomplete ignition by the manufacturer. He said he had frequently observed the presence of carbonate in magnesia, and felt convinced that in this case the presence or CO_2 must be brought about by absortion, as he believed that this article was usually very carefully prepared.

*Read before the Liverpool Association of Chemists.

Condition of the Flint Glass Trade.

Though the condition of the domestic flint glass business, especially embracing table goods and chimneys, has been propitious for some time, as far as the demand is concerned, it is the opinion of many persons intimately conversant with the vicissitudes of the trade and its tendencies, that, with a continuance of present conditions, a period of considerable depression may be expected in the early spring, if not sooner, says the *Pottery and Glass Reporter* in a review of trade. That trade should be active now is only what is to be looked for, because this season is always the best of the year, and if ware was not in demand now, it would be vain to expect it to be so at any other season. What leads to the belief above expressed, by those who have given the subject thought, is the great increase of productive capacity and facilities which has taken place in the last year, not to go beyond it. To commence with the tableware branch; although we have not just ready a detailed list of the new factories built and started in operation within the time specified—accounts of all of which have, however, appeared from time to time in these columns—the aggregate augmentation of productive power has been quite large, much beyond any that occurred in three or perhaps five times the same period in the previous history of the industry. It is altogether probable that the primary incentive to this increase of working capacity was the free fuel, free sites and other pecuniary inducements offered in parts of the West, and elsewhere; but the great strike that commenced here and in the Ohio valley, as well as the East, in the latter part of 1887, was also a powerful factor in inciting to the results stated. The scarcity of ware produced by these troubles, in promising a ready market for whatever might be manufactured, combined with the inducements previously mentioned, urged many to invest capital in the table glass business, who otherwise would not have entered into it. And so potent was the effect of that strike, in originating what now promises to be only a temporary deficiency in supply, that plenty of men who knew absolutely nothing of the glass industry embarked in it, trusting that what were merely factitious contingencies would become the permanent conditions of the trade. So far, their anticipations have not altogher failed of realization; in fact the trade has kept up better than might reasonably be expected of it. The reverse action might have commenced sooner only for the temporary abandonment of several old factories after the strike was over, and the time lost in reoganizing some and moving others from one locality to another. But now that this transitional process, if we may so term it, is about complete, and nearly all the factories, both new and old are working vigorously, the necessary consequences to the trade of their immense output, must, we think, soon become apparent. Of course the fact of this being the fall season, the busiest in the year for the tableware trade, as we have remarked before, has helped to retard the appearance of any retrogression, but such influences as this condition exerts cannot in the nature of things last long now. Jobbers in the West and other parts of the country report that the pressure brought to bear by an enormous host of glassware salesmen, to induce purchases, is without precedent in their experience, and of course where such anxiety to sell exists, the idea of maintaining prices at anything like a reasonable or profitable standard must be abandoned. All this bodes ill for the business, for if such serious drawbacks are already perceptible in the trade, how will it be when the December and January dullness sets in with all these factories still in operation? The state of the prescription glass trade presents features similar to those described above, only of a more aggravated kind. In proportion to the previous amount of productive facilities, the increase of new plants within the last couple of years has been even greater than that in the case of tableware. While the denudation of the market by a big strike afforded a partial reason for men trying to supply the want thus created for table goods, there was no such impelling cause in the prescription business. There has been stock in abundance all along, the prices have been of the most meager kind, and it has been nip-and-tuck even with the oldest houses in the trade to keep going in any kind of a manner. Nothing has recently occurred, nor is likely to happen soon either, to change these conditions, and yet we hear of factories going up in a haphazard manner in all direct ons, as if the single and crying need of the country was for more flint glass bottles. Even the chimney trade, though in rather a better condition here than usual, is likewise threatened with complications, in view of the increase of manufacturing in the East and other places. It would be no cause for wonder to see this trade also come in for its share of the evil results arising from making mo than consumers require to supply their needs, though we do not look for any very early falling off in this business. We must not be understood as decrying the extension of the flint glass business or of questioning the right of any man to go into it that chooses to. But there are plenty of things that a man may have a perfectly just and legal right to do, which, nevertheless, it is better for him not to do. A man may throw his money in the fire if he wants to, or invest in presidential bets, and though we may question his judgment in doing so, we cannot dou t his right. We think, and we are not by any means alone in thinking, that the glass making capacity of the country at present, when fully employed, as it is or nearly is, produces more ware than the needs of the people require, and when such is the case somebody must come to the wall. Of course we expect to have the time-honored objection put to the tenor of our remarks, that as long as so much flint glass is imported, and necessarily sold or it would not come here, there ought to be room enough for all that is made at home. We do not pretend to argue why it is so, but it is still the fact that some people prefer imported glass, and if there were fifty domestic factories making glass where only one is now, these people would still have their tastes unchanged, irrespective of quality, appearance or other circumstance. In business, people have to take things as they are in actual practice, and not according to their theories they ought to be.

The Constituents of Cacao Butter.

BY P. GRAF,

Although two elaborate investigations on the constituents of cacao butter have already been made, it appears advisable to again subject it to a thorough examination, especially as the results of the two investigations do not agree.

Kingzett made the first thorough investigations of the constituents of cacao butter. He found in it an acid, isomeric with lactic acid, and another having the composition $C_{44}H_{118}O_2$, which he called theobromic acid. According to this author, oleic acid to the extent of 20 per cent., and much stearic acid are also present. Free volatile and non-volatile acids were not found. Subsequently Van der Becke attempted to prepare the theobromic acid, but without any positive results.

The latest thorough investigation was made by M. C. Traub, whose principal object was to confirm the existence of the isomeric lauric acid, and theobromic acid isolated by Kingzett. Traub had doubts about the existence of the theobromic acid, because according to its composition it belongs to the acetic series, while the properties described by Kingzett, do not belong to this acid. According to Kingzett theobromic acid melts at 72·2°C, while as an acid of the acetic series, on account of its high percentage of carbon its melting point must be much higher,

Traub also doubled the existence of theobromic acid, because it is said to distill without decomposition at a high temperature, whereas fatty acids can only be distilled in vacuo.

Acids in which the molecule contains more than 20 atoms carbon, can not be distilled at all. The result of Traub's investigation showed that the existence of both of Kingzett's acids could not be confirmed, but that cacao fat consists of the glyceryesters of oleic, lauric, palmitic, stearic, and arachidic acid.

In my investigations I used 11 samples of commercial cacao butter for making a series of melting point determinations, according to different methods, in order to determine whether the varying statements on the melting point of cacao butter are due to the methods employed, or to the difference of commercial varieties.

The melting points were determined according to the two methods generally employed—in an open tube (open at both ends) and in a closed tube (sealed at the small end).

In making the tests in the open tube, a small quantity of the molten fat was drawn into the narrow part of the tube and left for 24 hours. In these determinations, the temperature at which the water raises the column of fat was taken as the melting point.

In the estimations with the sealed tube, small splinters of the cacao butter which was solidified while agitated, and set aside for 24 hours, were placed in the narrow portion of the tube, and the temperature at which the fat became perfectly transparent was taken as the melting point. The agitation while cooling was to prevent an uneven solidification of the various combined and free fatty acids. The solidified fats were laid aside for 24 hours, because determinations made immediately after solidification gave much too low results. The following table contains the melting points obtained with the different commercial varieties in the open and in the closed tubes:—

No.	In the open tube. Deg.	In the closed tube. Deg.
1.	32·7	34·3
2.	33·4	34·3
3.	29	33·5
4.	29	34·3
5.	30·5	34·3
6.	31	34·3
7.	30	34·3
8.	30·5	34·3
9.	31·5	34·3
10.	31	34·3
11.	30·2	34·3

From the foregoing table it will be seen that with one exception, the determinations in the closed tube gave concordant results, and that this method may be considered the most reliable. The varying statements regarding the melting point of cacao butter, therefore, do not depend upon the different fusibilities of the commercial varieties, but upon the methods used in making the determination.

The same melting point was obtained for fat extracted from shelled and whole cacao beans, extracted by petroleum ether boiling at 50° to 70°C.) and which was perfectly freed from petroleum ether by continued heating on the water bath.

From all these results the conclusion may be drawn that the melting point of pure cacao fat varies from 33·5° to 34·5° C. This difference is quite small as compared with that found (30° to 33°) by E. Herbst in his determinations made in the open tube.

All the samples of cacao fat were melted together and thoroughly mixed for the chemical investigation which was at first limited to the question whether cacao butter contains free fatty acids.

In the first place Merz's improved Burstyn method, which depends upon the titration of the free fatty acids with 1-10 normal alkali, and consequently does not exclude eventual saponification of the glyceryl ester.

Extensive experiments were made to obtain positive results regarding the last point. It could, however, be proved that in this method this fear need not be entertained, because, as will be shown further on' very accurate estimations of the free acids contained in the crcao fat were obtained.

In addition to this method an attempt was made to determine the free fatty acids by a method depending upon the use of disodium phosphate, the principle and execution of which will be discussed in the following.

In consideration of the fact that the disodium phosphate has a faintly alkaline reaction, and that one atom of sodium in the molecule readily combines with a mineral acid whereby monosodium phosphate is produced, also that an atom of sodium will even combine with carbon dioxide, it appeared possible that fatty acid would act upon disodium phosphate in the same manner. To determine in the first place, whether it does react, 0·2 gms. pure stearic acid was intimately mixed with 6·6 gms. anhydrous disodium phosphate. The mixture was placed into a small porcelain crucible and heated to the temperature of the water bath, with occasional stirring for 24 hours. It forms a dough like mass. On cooling the mass solidified. It was pulverized and repeatedly extracted with petroleum ether, in order to see whether this would take up any fatty acid. After repeatedly extracting, the petroleum ether, each time on evaporation left a certain quantity of fatty acid, from which it may be concluded, that no real reaction took place. If this is the case, the fatty acid must collect as an oily layer on the surface, when the mass is dissolved in warm water. This, however, is not the case. The mass dissolves to a clear, slightly opalescent solution, producing an abundant lather on shaking, and separating the fatty acid on addition of a few drops of dilute phosphoric acid, which could be removed from the liquid by shaking with petroleum ether. From the latter fact the conclusion could be drawn that the stearic acid did act upon the disodium phosphate. This conclusion is strengthened by the fact that a solution of disodium phosphate colored red with phenolphthaleine is decolorized by the addition of a very small quantity of stearic acid.

If, now, the disodium phosphate was to be used for the determination of free fatty acids, it remained to be shown, that it does not act upon neutral fats, and that the fatty acids are capable of replacing one atom sodium. To determine the first point, a neutral fat was prepared by trying fresh hogs fat, and repeatedly boiling it with alcohol. A small quantity of this fat was heated for some time on a water bath, with phenolphthaleine. The solution thereby did not change its color, while upon the addition of fatty acid, a decolorization was effected. As the later estimations had to be made with the use of dilute alcohol and litmus solution, the behavior of disodium phosphate toward neutral fat under these conditions, was also tested, and it was found that here, too, no action took place. To test the second point, whether the fatty acids will bind one atom sodium in the disodium phosphate, a solution of the fatty acids (separated from cacao fat) in alcohol was used. This solution was titred with 1-10 normal potash lye, and 10 c.c of the same were found to correspond to 3·6 c.c, 1-10 normal potash lye. In addition there was prepared for this purpose a solution containing about 5% disodium phosphate: According to two concordant determinations of the phosphoric acid, 1 c.c. contained 0·04595 gms.

$$Na_2HPO_4 + 12H_2O.$$

It should be mentioned, that in the titration with sodium phosphate solution the fatty acids must be dissolved in dilute alcohol (3 parts alcohol and 1 part water) to prevent the separation of either the disodium phosphate or fatty acid. Furthermore, in estimating the free fatty acids in fats, the fat must not be dissolved in ether or ether-alcohol, or else the sodium phosphate will be separated, and the neutralization of the fatty acid will be imperfect.

The best method for determining free fatty acids in fats consists in weighing 2 gms. of the fat in a small Erlenmeyer flask, and adding 30 c.c. dilute alcohol (3:1) and 3 drops litmus solution, and then adding to the warm solution, with occasional shaking, disodium phosphate, drop by drop, until the last drop has changed the red alcohol layer to blue.

None of the indicators used in alkalimetry, except litmus, can be used in this method.

To return to the neutralizing power of the disodium phosphate solution, it may be stated, that 10 c.c. of the fatty acid solution mixed with 3 drops of litmus solution required 2·8 c.c. disodium phosphate solution for neutralization. Although the transition from the red color to the blue is more difficult to recognize on account of the slight basicity of the disodium phosphate, than the endreaction when titering with normal potash and phenolphthalein, it is nevertheless sufficiently distinct when carefully observed.

Before the method was applied to the subsequent estimation of free fatty acid in cocoa butter, comparative estimations of fatty acids in the presence of neutral fats were made according to both methods. From the results it could also be seen that the reaction takes place quantitatively in mixtures of free fatty acids with neutral fats.

The estimation of free fatty acid in cocoa butter by this method was executed in the following manner:

Two gms. of the fat were weighed into a small Erlenmeyer flask. then 30c.c. dilute alcohol and 3 drops litmus solution were added. It was then heated and disodium phosphate solution added, drop by drop, with occasional shaking, until the originally red alcoholic layer had acquired a blue color. After deducting the amount of disodium phosphate required for a like quantity of alcohol which in this case amounted to 0·05 cc., two titrations gave the use of 0·35 cc. of the solution.

In a control experiment with an equal quantity of cocoa butter, according to Merz's method, 0·45 cc. 1-10 normal potash solution was required, which exactly corresponds to the above result.

From these estimations, as well as from others made in the laboratory of E. Dieterich in Helfenberg, according to Merz's method it was seen that cacao butter contains little free fatty acid.

This fact agrees very well with the results obtained in two estimations of glycerine, which were made in the following manner:

Two grains of the cacao butter were saponified on the water bath, with 0.6 gms sodium hydroxide dissolved in dilute alcohol, and the alcohol completely expelled by continued heating. The resulting soda soap was dissolved in hot water, and the clear solution mixed with an excess of dilute sulphuric acid. The separated solid fatty acids after pouring off the solution containing the glycerine, were repeatedly washed with hot water, until they no longer showed an acid reaction. The acid solutions were united, filtered, exactly neutralized with sodium carbonate and exaporated on the water bath. From the perfectly dry residue the glycerin was separated by repeatedly extracting with a mixture of 2 parts absolute alcohol and 1 part ether, The ether-alcoholic glycerine solution was placed in a tared dish, and the ether alcohol evaporated at a moderated heat. The residual glycerin was then heated for two hours more in a steam chamber to remove all the water, and weighed. The results obtained in the two estimations of glycerin were:

I. 9.67 per cent. } Mean: 9.59 per cent.
II. 9.52 per cent. }

That the clear, almost colorless, viscous liquid contained in the dish was glycerin, was shown by the production of acrolein vapors when heated with potassium bisulphate, and by its property of dissolving cupric hydroxide.

The above result does not agree with that obtained by Van der Becke, who found 5.99%. Its correctness cannot, however, be doubted, especially as the low percentage of free fatty acids in cacoo butter, is indicated by it. Assuming, on account of the observation that cacao butter consists essentially of stearic acid, that it is tri-stearin, we would theoretically have 10.33% glycerine, which is very close to the result obtained.

Experiments to determine the question, whether Cacao Butter contains constituents other than Glycerin-Esters.

To examine the cacao butter for the presence of unsaponifiable substances, 75 gms of the fat were saponified as in the estimation of glycerin. The process proceeded rapidly, and was apparently completed in a short time. Before further treatment could take place, the excess of sodium hydroxide in the soap had to be removed by converting it into sodium carbonate with carbon dioxide. The soap was then thoroughly dried by heating on the water bath, and finally in the steam chamber, ground to a fine powder, mixed with purified sand, and extracted in a Drechsel' extraction apparatus with petroleum ether (boiling at 70-85° C) for four hours. After evaporating off, the petroleum ether there remained small yellowish residue of a waxy consistency.

It was possible that on account of the imperfect drying of the soap, small particles of the soap entered the extract. By treating the residue with hot water it was however found to be free from soap. For a further examination it was heated for an hour with acetic anhydride, in an Erlenmeyer flask, provided with a reflux condenser. It dissolved completely, but on cooling the solution separated a white flocculent substance. After completely cooling the solution was filtered, and the residue on the filter dissolved in hot absolute alcohol. From this alcoholic solution, after concentrating and standing for some time, small crystals separated, which, under the microscope, and by their reaction with chloroform and sulphuric acid, were found to consist of cholesterin.

The solution separated from the cholesterin by filteration, was freed from the greater part of the acetic anhydride by evaporation, and treated with alcoholic potash. After the residue thus obtained had been repeatedly treated with dilute alcohol and water, it was dissolved in hot alcohol. This solution, after decolorization with alcohol, left, on evaporation, a minimum residue melting at 94° C. Further tests could not be made for lack of material.

EXAMINATION FOR VOLATILE ACIDS.

For this purpose 75 gms. were saponified as before, and the alcohol expelled by heating on the water bath. The soap was dissolved in hot water. On addition of dilute sulphuric acid in excess the solid fatty acids separated from the clear soap solution. These were washed with hot water until the wash water no longer gave a reaction for sulphuric acid, and set aside for a later examination of the solid fatty acids. To the combined wash water, which must contain the fatty acids present, was added sodium carbonate to faint alkalinity, after which the solution was evaporated to dryness, and the residue placed in a flask. After the addition of water and dilute sulphuric acid in excess a part of the liquid was distilled to separate the volatile fatty acids. The resulting distillate was turbid, and also contained a very small quantity of a solid acid, which was extracted from the aqueous distillate with ether. After evaporating the ether, a white substance was obtained, which was, however, too small in quantity for further examination. The distillate containing the more volatile fatty acids for further examination. It was heated on the water bath with occasional stirring and filtered hot. After evaporating on the water bath, a dry, white residue remained which was examined.

A second portion was heated with arsenious acid in a glass tube, when the odor of cacodyl oxide became distinctly perceptible, indicating the presence of acetic acid.

A third portion of the residue was heated with alcohol and sulphuric acid. A distinct odor of ethyl-butyric ester confirmed the presence of butyric acid. The test for formic acid was made with a larger quantity of the barium salt, when the well known phenomena of reduction with ammoniacal silver solution, and a solution of mercuric chloride were obtained.

The presence of formic acid, acetic acid and butyric acid in cacao butter is therefore confirmed.

ACID GROUP.

It now only remained to test for oleic acid, and to separate the solid fatty acids. To isolate the oleic acid 10 gms of the cacao butter were saponified in the ordinary manner, the soap freed from alcohol, dissolved in water, and the solution precipitated with plumbic acetate. The resulting lead salts of the fatty acids, to remove the excess of plumbic acetate, was heated with water until melted, and after cooling the solution containing the plumbic acetate was poured off. This manipulation was repeated until lead could no longer be detected in the wash water. The lead soap was then thoroughly dried and ground to a fine powder, placed into a tightly closed cylinder and shaken with ether. After the lead soap had settled, the yellowish solution containing lead was removed with a pipette. The shaking out with ether was continued until it was no longer colored yellow. To separate the lead and liberate the oleic acid from the combined ether solutions, they were shaken with dilute sulphuric acid. The ethereal oleic acid solution was then separated from the precipitate by decantation, filtered, and freed from sulphuric acid by repeatedly shaking out with water in a separatory funnel. The greater part of the ether was then distilled off, and the remainder set aside for evaporation. There remained an almost colorless oily liquid. This was dissolved in alcohol, and the solution mixed with ammonium hydroxide to almost neutral reaction, after which the oleic acid was precipitated with barium chloride. The voluminous precipitate of barium oleate, after washing with alcohol and water, was dazzling white, and could therefore be directly used, after drying in an exhausted desiccator, for the estimation of barium. Two determinations gave 19.65% barium which agrees very closely with the calculated percentage, which is 19.54. The precipitate there ore consisted of pure barium oleate.

The mixture of solid fatty acids obtained by the saponification of 45 gms. of cacao butter and decomposition with dilute sulphuric acid, was freed from oleic acid by dissolving it in a small quantity of alcohol by the aid of heat and pressing the alcoholic solution out of the solidified fatty acids after cooling. After repeating this operation three times it was quite safe to assume that all oleic acid had been removed.

In order to separate the fatty acids as rapidly as possible, a small quantity was subjected to fractional crystallization, and the melting point of the various fractions determined to see whether they showed any appreciable differences. As this was found to be the case, the operation was conducted with a larger quantity of fatty acids in such a manner that by alternate concentration and crystallization of the fatty acid solution, inclusive of the mother liquor, four fractions were obtained, viz.: 1, 2, 3 and 4. The fatty acids of the first three fractions were dissolved in sufficient alcohol to prevent any separation at the temperature of the room, and then each fraction was subjected to fractional precipitation, according to Heintz's method, by precipitation with magnesium and barium acetate. According to this method each fraction was precipitated hot with the thirtieth part of the weight of the fatty acid (originally present in the solution) of magnesium acetate dissolved in a small quantity of hot alcohol. After standing 24 hours the precipitates were filtered, washed with alcohol, pressed and dried in a dessiccator.

In each precipitate the magnesia was estimated, and from the result the molecular weight of the corresponding acid determined. After neutralizing the liberated acetic acid with a few drops of ammonia, the precipitation of the fractions was continued until no more precipitates were obtained.

The isolation of the different acids was sufficiently effected in this manner: After the fractions no longer gave precipitates with magnesium acetate, the solutions were precipitated with one-twentieth barium acetate, and the barium estimated in the precipitates obtained.

In the following brief review of the results obtained in the examination of the constituents of cacao butter, the results obtained in the separation of the solid fatty acids, and in the testing for oleic acid will be given first. In the first place it must be emphasized that no fatty acid of a higher molecular weight than arachidic acid was obtained, and that therefore the existence of Kingzetts theobromic acid, which Traub also failed to isolate is excluded, By the magnesium and barium estimations the presence of oleic acid, also stearic acid, palmitic acid, and lauric acid, which had already previously been found, has been confirmed. On account of lack of material, melting points and other tests could not be made on the barium salt the formula of which indicated lauric acid, for the purpose of determining, whether this was lauric acid or one of its isomers.

By extensive experiments with disodium phosphate solution as well as with 1-10 normal potash, it was shown that free fatty acids are only present in very small quantity in cacao butter.

The presence of volatile fatty acids which has been doubted by many can no longer be denied on account of the positive results obtained in testing for formic, acetic and butyric acid.—*Arch d. Pharm.*

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The Albany, Liverpool, Eng.
No. 208 Home Insurance Building, Chicago
No. 216½ Wash. Ave. So., Minneapolis.
No. 231 Smith's Wharf, Baltimore.
No. 188 St. James St., Montreal.
No. 96 Water St., New York.
No. 305 Walnut St., Philadelphia.
No. 150 First Ave., Pittsburg, Pa.
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Choice Pressed Herbs, Leaves Roots Barks and Flowers.

OUR FACILITIES for obtaining supplies of every variety of the finest herbs, leaves, roots, barks and flowers are unequalled, and we offer pharmacists the choice of the market in this class of products. Herbs, leaves and flowers are put up in ounces; roots and barks in pound packages only. Each ounce package bears the common and Latin names, with synonyms in English, German and French, and the properties and dose. With poisons the antidotes are given.

We use in putting up our packages of pressed herbs an impervious paper in the case of all Drugs depending for their activity on a volatile constituent, thus retaining the strength unimpared.

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Fluid Extracts.

Specially prepared for the convenience of Druggists for the extemporaneous preparation of Tinctures, Syrups, Elixirs, Wines, Etc.

WE PREPARE a little pamphlet detailing the advantages of some of these fluids, which druggists will find especially useful, and we will send this on application. We may mention here a few illustrative preparations.

Fluid Aloes
Concentrated Extract Bay Laurel
Fluid Extract Blackberry
Fluid Extract Buchu and Juniper with Acetate of (Potassium
Fluid Catechu
Fluid Extract Wild Cherry Bark, Detannated
Fluid Wild Cherry Bark for Syrup
Fluid Extract Cinchona Compound
Fluid Extract Cinchona, Red Compound
Fluid Extract Sarsaparilla Compound for Syrup
Fluid Extract Ergot
Fluid Extract Gentian Compound
Fluid Ginger, Soluble
Fluid Extract Golden Seal
Fluid Extract Ipecacuanha
Fluid Extract Licorice for Quinine Mixtures
Fluid Opium, Aqueous and Deodorized
Fluid Opium, Camphorated
Fluid Extract Rhubarb
Fluid Rhubarb, Aromatic
Fluid Rhubarb, Sweet
Fluid Tolu, Soluble
Aromatic Syrup Yerba Santa

It will at all times give us great pleasure to mail on application, complete descriptive price list and literature descriptive of our products, and to afford any information in our power regarding them.

PARKE, DAVIS & CO.,

MANUFACTURING CHEMISTS,

Detroit, Mich. **New York, U.S.A.**

MERZ CAPSULES.

Reduction in Price.

1000 Merz Improved Empty Capsules in Lacquered Metal Can 65c.

500 Hard Filled Capsules in Lacquered Metal Can:

Copaiba Para ..... 40c per hundred.
Copaiba and Oleoresin Cubebs ..... 80c " "
Merz Compound Sandalwood ..... 75c " "

OVER 100 STANDARD FORMULAS IN HARD AND SOFT FILLED.

LARGE QUANTITIES IN BULK A SPECIALTY.

Liberal Discount to Jobbers. Same Uniform Reduction in Boxed Goods.

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(PATENTED.)

The New Base for Salves and Ointments, is of White Color and Perfectly Odorless; for Burns, Wounds and all Skin Diseases. Has valuable antiseptic properties.

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Messrs. Benno-Jaffe & Darmstædter, Martinikenfelde, Germany.

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IMPORTERS,

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Shellac, all grades. **Verdigris,** Pods, Granulated and Powdered
Carbolic Acid, **Cudbear.**
Powd. Nit. Strontia, **Madder,**
Powd. Nit. Barium, **Red Argols,**
Gum Sandarac, **Gum Senegal.**

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Water White. **Inactive.**

The only reliable test of the purity of terebene is its perfect inactivity to polarized light. Careful examination of different brands now on the market has shown our preparation to be the only one free from turpentine. All other samples containing from 5 to 50 per cent.

We use only the best unadulterated oil of turpentine and careful tests are made with the polariscope during the whole process of manufacture.

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IRISH HILL BRAND.

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Alum, Sulphate of Alumina, Alum Cake, &c.

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227 Pearl Street, NEW YORK

DRUG MARKET.

Note—*Our prices are for large lot except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures.*

The prices current will be found on pages 49 and 50.

TUESDAY EVENING, Nov. 6, 1888.

The inquiry for goods in the drug line has been comparatively unimportant since the date of our last issue. There are few special features in any department while changes in prices have been for the most part unimportant. The outlook for a good fall trade is very flattering but at present neither buyers or sellers seem disposed to do much business. During the past week the following changes in prices have been made:

ADVANCED.	DECLINED.
Quinine, 2nd hands.	Balsam copaiba
Gum guiac.	Zanzib'r red pepper
Rape Seed	Pimento.

Opium.

There has been very little trading in this article during the past week. Small buyers are satisfying their wants as they occur, while those of a speculative turn hold off. Prices have been sustained and if anything a little better feeling prevails among holders the report that the fall sowings had proved a failure, giving them more confidence in the future of opium. Prices remain nominally $2 87½ @2 90 for "Boston," or so-called druggists quality, though it is said that only a few small lots are procurable at the inside figure. For natural, dealers quote $3 10@3 15 for single cases and are, apparently, not anxious to sell. London mail advices to the 27th ult, say: "The London market is quiet but steady, and, although there are a good many inquiries, most of these do not lead to business, because, it is said, American purchasers insist upon a guarantee that the opium will pass the customs there; and this holders are not inclined to give. A fair trade is being done in "soft shipping," 13 s having been paid, and 13s 6d being now asked for good Salonica. Persian opium is very scarce here, as the crop is said to have been only 3,000 cases, and the bulk of it is being shipped to China, the Chinese opium crop having suffered much through the late inundations in that country. Smyna reports, dated October 12, describe the market as firm for the better grades of opium, with an active demand, but only for the varieties in question, which are wanted to fulfil the engagements entered into with the Dutch Colonial department.

Quinine.

Advices from London are to the effect that a large movement has occurred there, the price meanwhile advancing to 1s 6d. Our market has not responded with any degree of spirit, but there is a firmer feeling and it is doubtful if the favorite German brands could now be bought below 33c. Large buyers here display no interest, but the consuming demand continues active and in this way a considerable quantity of stock is changing hands at 34@35c, as to quantity, brand and seller. Statistics just at hand, and kindly transmitted to us by Mr. G. Otto Elterich, are to the effect that the shipments of cinchona bark for the season ending October 1, were 2,440,000 lbs short, compared with 1886-1887, and 3,365,300 short compared with the season of 1885-86. The Java season, which closed July 1, showed an increase of 1,511,749 lbs on last year. The Java bark is said to contain 50% more quinine, so that this increase corresponds with 2,267,624 lbs of Ceylon bark. The shipments of cultivated calisaya bark from Bolivia show an increase of 2,000 bales over last year, or 200,000 lbs of bark, which, being very rich, corresponds to 400,000 lbs of Ceylon bark. The stock of bark in London on Sept. 1, 1888, was 37,001 bales of South American and 24,094 bales of East Indian, against 42,205 of the former and 19,078 of the latter last year on the corresponding date, and 60,000 South American and 9,291 East Indian in 1886. Further particulars are reserved until our next issue. The London sale of bark took place to-day, but as this was a close holiday here no particulars have been received.

Receipts of quinine for the week	10,000
Since Jan. 1	1,550,270
Corresponding period last year	1,712,886

Miscellaneous.

Alcohol is without change the market remaining firm under a good jobbing demand. We continue to quote $2 18@2 20 as to quantity.

Borax has been advanced by the Borax Board in San Francisco ¼c per lb. This market has not yet fully responded but the feeling is firmer and the tendency is upward. We quote refined at 8⅝@8⅞c and concentrated at 8@8¼c as to quantity.

Cantharides are firmer all the outside lots having been absorbed. Chinese are quotable at 38@40c and Russian at $1 30@1 35. The jobbing demand is good but there is no inquiry at present for round lots.

Castor oil is neglected and prices are almost wholly nominal. We quote 11½c in barrels and 12½c in cases.

Codliver oil is in good jobbing demand, but it is yet too early in the season to expect much of a movement. Norwegian, as to brand and quantity, is quoted at the range of $21@27 per barrel, while Newfoundland is held at 65@70c per gallon.

SULFONAL-Bayer

Manufactured by the

FARBENFABRIKEN, formerly

Friedr. Bayer & Co.,

ELBERFELD.

SULFONAL IS PROTECTED BY UNITED STATES PATENT.

We quote:	per oz.
Sulfonal-Bayer, in oz. bottles	$2.00
In lots 10 ozs,, " "	1.90
" 25 " " "	1.85
" 50 " " "	1.80
" 100 " " "	1.75

In ½ ounce bottles five cents per ounce additional.

Tablets Sulfonal-Bayer, 15 grains (ten in tube) per tube, 1.25

We have in preparation a pamphlet on *Sulfonal-Bayer* which we will mail to applicants when published.

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IMPORTED BAY RUM.

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Sulphate of Quinine,	Bromide of Potassium,	Hypophosphites,
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Citrate of Iron and Quinine,	Iodide of Potassium,	Spirits of Nitre,
Sulphate of Cinchonine,	Sulphate of Morphine,	C. P. Acids,
Sulphate of Cinchonidine,	Acetate of Morphine,	Tannin,
Sulphate of Quinidine,	Muriate of Morphine,	Ressublimed Iodine,
Bromide of Ammonium,	Nitrate of Ammonia,	Ether.

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QUININE.

Quinidia,	Codeine,	Resin Jalap,
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Chinoidine,	Koussein,	Strophanthin,
Acetanilid,	Morphine,	Strophanthi Tinct.
Aconitia,	Papain,	Terpinhydrat,
Arbutin,	Pelletierin,	Terpinol,
Atropia,	Pilocarpin,	Urethan,
Caffein,	Physostigmin,	Veratrin,
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IMPORTER AND EXPORTER OF

DRUGS

AMERICAN INDIGENOU

OILS, ROOTS, BARKS, HERBS

A SPECIALTY.

Colocynth apples are in light supply and with a good consuming demand are firmly held. For Spanish the quotations are 28@30c, while Trieste are quotable at 46@50c.

Ergot possesses no attractions for large buyers, but the jobbing demand is reported very good. A steady feeling prevails and we repeat our quotations of 24@26c as to quantity for Spanish and 19@20c for German.

Glycerine is firmly held but is wanted to a moderate extent in a jobbing way only. We continue to quote 17c in drums and 17½@19c in brrrels and cases.

Guarana is without particular animation as consumers buy only what they want for immediate use. Supplies, however, are limited and the feeling consequently is firm.

Insect powder is still in demand for forward delivery but the activity is not as marked as it was a few weeks ago. Prices are unchanged and may be written firm.

Quicksilver is generally quoted at 65c, but there are said to be a few lots that can be bought at 63c. The jobbing demand is fair, but inquiry for large parcels is lacking.

Balsams.

The demand for balsam copaiba is almost wholly of a retail character, and as there have been some additions to the supply of late, a somewhat easier feeling prevails. Nominally the quotations are 52½@54c for Central American, 56@58c for Maranham and Para, and 62½c for Angostura. There is little or no inquiry for fir or Peru balsams, and prices for both remain nominal and unchanged. Stocks of balsam tolu have been concentrated, and the feeling is firmer, though prices have not quotably advanced.

Beans.

The demand for tonka beans continues good in a jobbing way and the recent improvement in values is sustained We quote Paras at 50@60c as to quality and quantity, Surinams at 80@90c, and Angosturas at $1 30@1 40. The jobbing demand for vanilla beans is active, but consumers are not disposed to anticipate their wants. The market is firm with the tendency upward.

Essential Oils.

There are no features of special consequence in this department. The movement into consumption continues to be of fair proportions, but transactions are confined within jobbing limits. The general tone of the market is firm and we find no special changes to record.

Clove oil is tending upward in sympathy with the spice and has a very good jobbing demand. Prices are without quotable change, the range being $1 45@1 60 as to quality.

Peppermint is very strong the offerings from the country being light and prices there relatively higher than in this market, There is a good demand for consumption but very little speculative interest is manifested. We repeat our quotations of $2 40@2 50 for western and $2 60@2 65 for State as to quantity, quality and seller. In case oil there is little doing but the market is firm at $3 25@3 30.

Sassafras oil is still in light supply with little coming forward. The jobbing demand continues good and is supplied at 67@70c as to quantity and seller.

Flowers.

For most of the articles on the list there is a fair jobbing demand, but there is no inquiry for large lots of any descriptions. Prices are maintained on the basis of our quotations.

Gums.

The inquiry from consumers is moderately active, nearly all lines participating. For Arabics and Senegals there is a brisk jobbing demand, and as foreign advices are strong, prices are very firm, with an upward tendency. Guiac has again advanced, and and is now held at 25@32c, as to quality, supplies being small and the arrivals limited, while the demand continues good. Camphor is firm and we now hear of nothing offering below the manufacturers' quotations of 27½c in barrels, and 28½c in cases.

Roots.

Nothing particularly new or interesting is to be found in this department, the dem nd for most of the articles on the list being moderate, and prices as a rule steady and unchanged.

Seeds.

Consumers are buying in a hand-to-mouth manner, as there is nothing in the situation of the majority of the seeds to warrant them in anticipating these requirments. Mustard is quite active, but only in a jobbing way. Rape is scarce and wanted, and is a trifle higher. We quote German at 3¼c, and English at 4c.

Spices.

While the jobbing demand continues brisk, there is nothing moving in a large way and the absence of orders for invoice lots gives the market a quiet appearance. The general tone of the market is one of steadiness, and we find no changes to record except in the prices of Zanzibar red pepper and prime pimento, both of which are a trifle lower.

Shellac.

The shellac market has presented a rather quiet appearance during the past week, buyers taking only such lots as they have immediate use for. The strong tone of foreign advices increases the confidence of buyers and at the close it was intimated that a further rise in prices was probable in order to meet the enhanced cost of the stock in Calcutta and London.

Messrs. W. H. Schieffelin & Co. apprise us that dealers and others who buy and sell or use sulfonal must, for their own protection, see that it is labeled Sulfonal Bayer, Farbenfabriken vormals Friedr Bayer & Co. in Elberfeld, and that the name of "W. H. Schieffelin & Co.," sole importers in the U. S. A.,' appear on the label. This caution is accompanied by an explanatory note from the attorneys of the Farbenfabriken, announcing that letters patent had been issued October 30 to that company as assignees of Eugen A. Baumann, for sulfonal, adding that this invention is universally recognized as Prof. Baumann's, and that some parties are alleged to be infringing his rights after having admitted his title as inventor. They have been instructed by the owners of the patent to promptly prosecute all infringements of the same, and have already begun suit against Messrs. Lehn & Fink of this city for their alleged infringement.

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MANUFACTURERS OF
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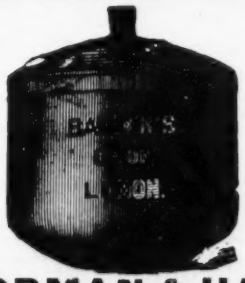
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is invariably put up in bottles as per cut, especially adapted for this market in 1869, and the preparation in this style of package is Guaranteed Genuine and Imported by the signature of TARRANT & CO, on the metallic cap, sole Importers and Agents.

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POST OFFICE DEPARTMENT.

Office of the General Superintendent of Railway Mail Service.

WASHINGTON, D. C., December 12, 1887.

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Very respectfully, T. E. NASH, *General Sup't.*

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AS THEY
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products of combustion, of a wall arranged across the front end of said furnace, between which and the adjoining end thereof is a passage for the escape of soda, said wall being mounted on suitable ways, whereby it is moved toward and from the end of the furnace and provided with one or more apertures and one or more hydrocarbon-burners disposed opposite said apertures, substantially as set forth.

2. The combination, with a rotatable cylindrical furnace having a heat-inlet opening at one end and an outlet-flue, of a wall disposed across said heat-inlet opening mounted on suitable guides or ways, whereby it may be moved toward and away from said opening and provided with two or more aperatures, and a tank, and two or more burners, each arranged at an angle to the inner side wall of the said rotatable furnace, and suitable conduits for conveying oil and air to said burner-tank, substantially as and for the purpose described.

3. The combination, with a rotatable cylindrical furnace having a heat-inlet opening at one end and an outlet-flue, of a wall disposed across said heat-inlet opening mounted on suitable guides or ways, whereby it may be moved toward and away from said opening, and provided with two or more aperatures, and a tank, and two or more burners, arranged at varying heights on said wall, and each arranged at an angle to the inner side wall of the said rotatable furnace, and suitable conduits for conveying oil and air to said burner tank, substantially as and for the purpose described.

4. The combination with a rotatable cylindrical furnace, having heat inlet and outlet openings through its opposite ends, of a wall disposed at right angles to said heat-inlet opening mounted on suitable guides or ways whereby it may be moved toward and away from said heat-inlet opening, and provided with one or more aperature, tank, one or more burners, and suitable conduits for conveying oil and air to said burner-tank, and a chamber, having a flue, in communication with the furnace ontlet-opening, and a chimney, and a boiler located in said chamber between said flue and said chimney, substantially as and for the purpose described.

5. In an apparatus for recovering caustic soda, the combination, with the rotatable cylindrical furnace, having the end openings, of a wall disposed across said opening mounted on suitable guides or ways, whereby it may be moved toward and away from said opening and provided with a series of suitably disposed apertures, and a tank E, and a series of burners, arranged at varying heights on said wall, and each arranged at an angle to the inner

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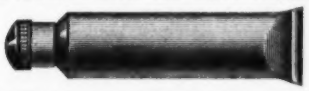

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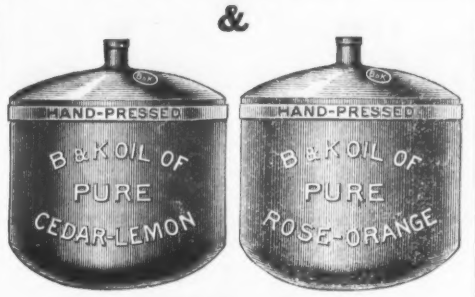

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Our manufacture of Pepsin represents in the most concentrated form, the Digestiv Principle contained in the stomach of the pig. For Strength and Purity, we believe it to be unequalled by any Pepsin manufactured, either scale, crystallized or in amorphous powder. It is free from mucus, and has a minimum of disagreeable odor and taste.

It has nearly ten times the strength of Saccharated Pepsin as ordinarily dispensed. One grain of it, added to a mixture of 75 minims of Muriatic Acid, with ten ounces of water, and maintained at a temperature of 104° to 105° Fahr., will in from four to six hours dissolve 1,000 grains of Coagulated Albumen.

We especially prepare this Pepsin for manufacturers of preparations containing this article, and can supply it at a much less cost than it can be prepared on a small scale.

We will give special quotations in bulk, and will take pleasure in sending samples to any one who may wish to test its comparative strength and therapeutic value.

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WHOLESALE PRICES CURRENT.

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Oils, Etc

Vegetable Oils.

Linseed Domestic Raw, in bbls, ₩ gal.	.58	@59
Boiled, in bbls	—	@61
Calcutta, Raw, in bbls	.60	@61
Western on spot	.56	@57
Rapeseed, in bbls	.65	@66
Mustard	.42	@55
Cottonseed, Crude Prime	.43	@44
Crude, off quality	.38	@40
Yellow Summer Prime,	.52½	@53
Yellow Summer, off qual.	.49	@50
Yellow Summer, cooking	—	@—
White Summer	.53	@54
Yellow Winter	.59	@60
White Winter	.59	@60
Soap stock	1¼	@—
Olive, Malaga	.73	@75
Spanish	.75	@80
Soap Stock	—	@ 53¼
Palm, prime ₩ lb	—	@ 5½
Off quality	—	@ 4½
Cocoanut, Domestic	—	@—
Ceylon	—	@5 40
Cochin	6½	@—
Castor, No. 2	—	@—
No. 3	.11	@12
Rosin, first run ₩ gal.	—	@ 9
Second run	—	@12
Third run	—	@15
Deodorized	—	@18

Animal and Fish Oils.

Whale, natural winter ₩ gal.	—	@42
Bleached winter	—	@44
extra bleached winter	—	@46
Bleached spring	—	@42
Sperm, natural winter	.70	@73
Bleached winter	.75	@77
Natural spring	.64	@66
Bleached spring	.69	@70
Sea elephant, bleached winter	.55	@56
Unbleached winter	.50	@51
Lard, prime city	.73	@74
prime, western	.73	@74
Extra No. 1	.60	@65
No. 1	.50	@53
No. 2	.40	@50
Menhaden, prime crude	—	@52
Prime southern	—	@—
Brown strained	—	@35
Light strained	.36	@37
Extra bleached white	—	@40
Bleached winter	—	@38
Bank	.34	@35
Straits	.35	@34
Herring	—	@35
Oleo	—	@—
Cod, Domestic, prime	.37	@38
Newfoundland	—	@—
Black Fish, Crude	—	@—
Natural	—	@—
Bleached Winter	—	@—
Degras, English	2¼	@ 2½
French	—	@—
Tallow, Prime	.53	@54
Neatsfoot, Prime	.76	@80
No. 1	.55	@60
No. 2	.45	@50
Saponified Red	.43	@45
Elaine Red	.37	@40

Mineral Oils.

Paraffine, High viscosity ₩	18	@19
23@24 gravity	11½	@12
25 gravity	10½	@11
28 gravity	8½	@ 9
Red Paraffine, 22 @23 gravity	.14	@14½
24@25 gravity	.12	@12½
Neutral filtered, 32 grav., bloomless	.18	@20
extra cold test	.22	@40
white, 35 gravity	.33	@35
34 gravity, bloomless	.16	@18
32 gravity, wool grade	.13	@15
West Virginia, natural, 29 gravity	.20	@25
Franklin, natural, 32 gravity	—	@—
Smith's Ferry, 33@34 gravity	7½	@ 9
Black reduced, 29 gravity, 25@30 c. t.	8	@ 9
29 gravity, 15 cold test	8½	@ 9½
29 gravity, zero	.10	@11
Summer	7	@ 7½
Cylinder, light filtered	.15	@20
dark filtered	.14	@21
extra cold test	—	@—
dark steam refined	.12	@18

Oil Cake.

Calcutta cake, city ₩ ton	27 75	@28 00
City domestic	—	@26 75
Western, in bags	.26 50	@— —
Cottonseed cake at Memphis	.20 25	@20 50
do do New Orleans	—	@22 50

Oil Meal.

State domestic meal ₩ ton	27 00	@ —
Cottonseed meal at Memphis	17 50	@18 00
do do New Orleans	22 50	@ —

Wax Candles, Lard, Tallow, Etc.

Paraffine wax, crude, 124@126 m p ₩ lb	4½	@ 4¾
128@130 m. p	4¾	@ 5
refined 135 m. p		@ 9½
Candles, Paraffine, 4s and 6s	9½	@11
12s	.10	@12
Adamantine, 6s, 16 oz	—	@ 9
14 oz	—	@ 8
12 oz	—	@ 7
12s, 16 oz	—	@10
14 oz	—	@ 9
12 oz	—	@ 8
Patent sperm, 4s and 6s	.42	@43
Sperm, 4s and 6s	.32	@33
Stearic acid	.11	@13
Spermaceti	.28	@29
Lard	.8	@10 25
Stearine	7¾	@ 9¼
Tallow	7½	@—

Naval Stores.

Sp. tur'tine	45½@46	I.	1 50 @—
St'd rosin	—@1 00	K.	1 75 @—
G'd st'd	1 05 @—	M	2 00 @—
E	1 12½@—	N.	2 40 @2 45
F	1 20 @—	W G	3 00 @—
G	1 25 @—	W W	3 50 @—
H	1 35 @—		

Paints, Varnishes, Etc

White Lead, Zinc, Etc.

American Dry White Lead ₩ lb	6½	@7
Pure White Lead, in oil	7	@7¼
English White Lead, in oil	8½	@8¾
Zinc White, Paris, G S, 50 bbls	7½ less 4	₩ ct
G S, 25 bbls	7½	2 ₩ ct
G S, 10 bbls	7½	1 ₩ ct
R S, 50 bbls	6½	4 ₩ ct
R S, 25 bbls	6½	2 ₩ ct
R S, 10 bbls	6½	1 ₩ ct
Antwerp R S, 50 bbls	5½	4 ₩ ct
R S, 25 bbls	5½	2 ₩ ct
R S, 10 bbls	5½	1 ₩ ct
G S in poppy oil	10¾	@10¾
R S in poppy oil	8¾	@ 9¼
French in Varnish	.16	@20
American Extra Dry	4¾	@ 4¾
Off color	4	@ 4½
In oil	6¼	@6¾
In varnish	.14	@18¾
L. Z. O. German zinc	5½	@ 5
China white	10½	@12
Flake white	10½	@12
Cremnitz white	.15	@20

Dry Colors.

REDS

Carmine No. 40 ₩ lb	2 70	@ 3 70
Crocus martus, imported	1½	@ 2½
Standard American	1½	@ 2½
Colcothar	3½	@ 6
Indian red, American	3½	@ 6¾
Standard American	2	@ 3
English	5½	@ 7
Tuscan red, English	9¾	@ 11
Turkey red, English	9½	@ 14
Litharge, English flake	9	@ 9½
American powdered	6½	@ 6¾
Red lead, English	8½	@ 9
American	6¾	@ 7
Orange mineral, English	8¾	@ 9½
French	9½	@ 9¾
German	8¾	@ 9½
American	8	@ 8½
Rose pink, English	9	@ 9½
American	8	@ —
Vermilion, imported English	82	@ 85
Am. quicksilver, bulk	60	@ —
Am. quicksilver, bags	61	@ —
Chinese	88	@ 90
Trieste	72	@ 77
American	10½	@ 11
Artificial	8	@ 25
Venetian red,	1 40	@1 50
English prime	1 40	@1 50
second qunlity	1 05	@1 25
American	1 00	@1 35

YELLOWS.

Chrome yellow	.10	@ 25
Ocher, Rochelle	1 35	@1 50
Washed Dutch	5	@ —
Washed French	2	@ —
Washed Nat Oxford, Lump	6½	@ 6¾
Washed Nat Oxford, Powd'r	7	@ 7½
Golden	3¾	@ 4
Domestic	¾	@ 1¼
Domestic, for O C & W P	¾	@ 1

GREENS.

Chrome, Chemically pure	.22	@26
Extra	.12	@13
Super	9	@11½
Common	—	@ 8
Paris, Pure		@18¾
In pulp	11	@12
French Verdigris	.40	@42

BLUES.

Chinese Blue	.45	@50
Prussian Blue	.30	@35
Soluble Blue	.45	@55
Ultramarine Blue	7	@25
Celestial Blue	5½	@ 8
Blue verditer	.25	@30
refiners'	.60	@70

BROWNS.

Sienna, Italian, burnt & powdered	6	@ 6½
burnt lumps	3	@ 3½
raw powdered	6	@ 7
raw lumps	3¾	@ 4
American, burnt & powdered	1¼	@ 1¾
raw	1½	@ 1¾
Umber, Turkey, burnt and powdered	3¾	@ 4
burnt lumps	2¾	@ 3
raw and powdered	3¾	@ 4
raw lumps	1¾	@ 2¼
American, burnt	1¼	@ 1½
raw	1¼	@ 1½
Vandyke brown, English	6	@ 8
American	3	@ 3¼
Spanish brown	¾	@ 1

Miscellaneous.

Barytes, prime white ₩ ton	16 00	@18 00
foreign floated	19 00	@21 00
domestic floated	30 00	@32 00
off color	12 50	@14 00
Chalk	—	@ 3 50
kiln dried ₩ 100 lbs.	45	@ —
air dried	30	@ 35
China clay ₩ ton	13 00	@18 50
Cobalt oxide	2 60	@ 2 90
Feldspar ₩ ton	15 00	@ —
Silex	14 00	@25 00
Whiting, commercial ₩ 100 lbs.	—	@ 60
gliders'	70	@ 75
Paris white, English cliffstone	1 05	@ 1 15
American	65	@ 80
French talc	11	@ 1½
terra alba	75	@ 80
American terra alba No. 1	65	@ 70
No. 2	36	@ 40
Blanc fix ₩ lb.	2½	@ 3
Dentists' plaster ₩ bbl.	1 35	@ 1 50
Calcined plaster ₩ bbl.	1 25	@ 1 50
Marble dust ₩ bbl.	90	@ 1 00
Pumice stone, original cks. ₩ lb.	1¾	@ 2
selected lumps in bbls.	3¼	@ —
powdered pure in bbls.	2¾	@ 2½
Rotten stone original cks	4½	@ 5½
selected lumps	6	@ 10
powdered, in bbls.	3¼	@ 3½
Rubbing stone	5	@ 7
Bronze powder	—	@ —
Brocades	45	@ 1 00
Smalt, German blue	15	@ —
super black	—	@ —
Putty ₩ bulk	1¼	@ 2½
bladders	2	@ 2½
tins	—	@ 2¾

Glues.

Extra white ₩ lb.	.17	@20
Medium white	.13	@15
Cabinet	.12	@14
Low grade	8	@10
Foot stock, white	9¼	@13½
brown	4	@ 8
Irish	12¼	@14½
French	9½	@22½
English	10½	@15

Metallic Paints.

Brown ₩ ton.	$27 50	@32 50
Red	27 50	@32 50
Yellow	27 50	@32 50

Colors in Oil.

Black coach, Japan ₩ lb.	18½	@20
in oil	12	@13
Drop black	8¾	@14½
Ivory black	8¾	@14½
Lamp black	12	@20
Chinese blue	.35	@40
Prussian blue	.20	@45
Ultramarine blue	12	@18
Burnt sienna	7	@14
Raw sienna	7	@14
Burnt umber	7	@11
Raw umber	7	@11
Vandyke brown	7	@12½
Chrome green	8	@14
Paris green	16	@18½
English drop black	12½	@14
American drop black	7½	@10
Frankfort drop black	25	@30
Lampblack, prime	27½	@33
medium	19½	@23
2d quality	13	@19
low grade	6½	@10
Naphtha, black	60	@—
Fine calcined velvet black	16	@25
Medium calcined velvet black	12	@15

Varnish Gums.

Copal, Sierra Leone, cleaned	35	@40
Zanzibar, bold white	72	@75
medium white	62	@65
bean and pea	35	@45
Manila, pale	17	@20
bright amber	13	@15
standard	8	@10
Damar, Batavia	19	@21
Kauri, standard	13	@16
No. 2	12	@14
hard scraped	—	@22
light hard scraped	26	@28
picture quality	65	@70
pale and fine selected	42	@65
Sandrac	17½	@20
Asphaltum, Cuban, prime	4½	@ 5½
sandy	4	@ 5
Egyptian	8	@ 9

Glass.

PLATE AND WINDOW.

FRENCH SINGLE.

Prices per Fifty Feet.

Sizes.	1st.	2d.	3d.	4th.
6x 8 to 10x15	$10 50	$ 9 00	$ 8 50	$ 8 00
11x14 to 16x24	11 50	10 75	10 25	9 75
18x22 to 20x30	15 50	14 00	13 00	12 50
15x36 to 24x30	16 50	15 00	13 50	....
24x36 to 24x38	17 75	16 20	14 75	....
26x28 to 24x36	26 00	25 00	23 00	....
26x36 to 26x44	19 00	17 50	15 25	....
26x46 to 30x50	21 00	19 50	17 00	....
30x52 to 30x54	22 00	20 25	18 00	....
30x56 to 34x56	23 00	21 25	19 00	....
34x58 to 34x60	24 00	22 75	21 00	....
36x60 to 40x60	26 50	24 50	23 00	....

FRENCH DOUBLE.

Prices per Fifty Feet.

Sizes.	1st.	2d.	3d.	4th.
6x 8 to 10x15	$13 00	$12 50	$12 00	$11 50
11x14 to 16x24	16 00	15 00	14 50	....
18x22 to 20x30	20 50	19 50	18 50	....
15x36 to 24x30	22 00	20 75	19 50	....
26x28 to 24x36	25 00	23 00	21 50	....
26x46 to 30x50	28 00	26 50	24 50	....
30x52 to 30x54	30 00	28 00	26 00	....
30x56 to 30x56	31 00	30 00	28 00	....
34x58 to 34x60	32 50	31 00	29 00	....
36x60 to 40x60	36 00	33 50	32 00	....

Discounts:—75@75 & 10 for S & D.

AMERICAN SINGLE.

Sizes.	1st.	2d.	3d.	4th.
6x 8 to 10x15	$10 50	$ 9 00	$ 8 50	$ 8 00
11x14 to 16x24	11 50	10 75	10 25	9 75
18x22 to 20x30	15 50	14 00	13 00	12 50
15x36 to 24x30	16 50	15 00	13 50	....
26x28 to 24x36	17 75	16 25	14 75	....
26x36 to 26x44	19 00	17 50	15 25	....
26x46 to 30x50	21 00	19 50	17 00	....
30x52 to 30x54	22 00	20 25	18 00	....
30x56 to 34x56	23 00	21 25	19 00	....
34x58 to 34x60	24 00	22 75	21 00	....
36x60 to 40x60	26 50	24 50	23 00	....

AMERICAN DOUBLE.

Sizes.	1st.	2d.	3d.	4th.
6x 8 to 10x55	$13 00	$12 50	$11 00	$10 00
11x14 to 16x24	16 00	15 00	13 50	12 00
18x22 to 20x30	20 50	19 50	18 00	....
15x36 to 24x30	22 00	20 75	18 75	....
26x28 to 24x36	25 00	23 00	21 00	....
26x36 to 26x44	26 00	25 00	22 50	....
30x46 to 30x50	28 00	26 50	23 75	....
30x52 to 30x54	30 00	28 00	25 25	....
30x56 to 34x56	31 00	30 00	27 00	....
34x58 to 34x60	32 50	31 00	28 00	....
36x60 to 40x60	36 00	33 50	30 00	....

Discounts:—75&5@75&10.

Drugs.

Opium.

Opium, in bond ₩ lb.	5.1	87½@2 30
duty paid (cases)	.2	87½@3 30
as wanted	3 10	@3 50
powdered	4 40	@— —
Morphine	2 40	@2 70
foreign	3 35	@3 45

Quinine.

Quinine, American ₩ oz.	43	@ 50
English	—	@—
French	—	@—
German	32	@ 40
Cinchonidia, American	4	@ 5
foreign	2¾	@ 3
Quinidia, German	24	@ 29

Miscellaneous.

Acid benzoic, German ₩ lb.	42½	@ 55
English ₩ oz.	11½	@ 13
boracic purified ₩ lb.	20	@
refined	15	@
flaky	14	@
carbolic, pure crystals	29	@ 34
Acid carbolic commercial	25	@ 30
citric, domestic	49	@ 50
foreign	49	@ 50
salicylic, bulk & boxes	1 56	@ 1 62
Alcohol, 94 p ct, free per gal.	2 18	@ 2 20
refi'd wood, 95 p ct	—	@ 1 10
92 p ct	—	@ 1 05
dia methyl, 98 p ct	1 25	@ 1 30
Inodorine, 97-99 p ct	1 50	@ 1 60
Cologne spirits, 188 p t	2 28	@ 2 30
Ambergris gray	22 00	@30 00
black	9 00	@12 00
Ammonia carb, foreign	7½	@ 8
domestic	8	@ 8½
Bay rum imp, bulk	1 95	@ 2 00
Barbadoes tar	38	@ 40
Borax, refined city, bbls. ₩ lb.	8¾	@ 8¾
Cal., bbls.	8½	@ 8½
concentrated	8	@ 8¼
powdered	8½	@ 8¾
Bromine	37	@ 38
Burgundy pitch	2¾	@ 3
Cantharides, Russian	1 30	@ 1 35
Chinese	37½	@ 40
Calomel, domestic	73	@ 75
English	1 05	@ 1 10
Castile soap, white	10¾	@ 10¾
green, pure	6½	@ 6¾
mottled ordinary	4½	@ 4¾
pure	5½	@ 5¾
Chian turpentine ₩ oz.	45	@ —
Chloroform	40	@ 45
Colocynth apples, Trieste ₩ lb.	46	@ 50
pressed	—	@ —
Spanish	24	@ 27
Cacao butter	—	@ 40
Chloral hydrate, crystals	1 55	@ —
plates	1 25	@ —
Corrosive sublimate	65	@ 67
Cuttlefish bone, Trieste	20	@ 22
Dragon's blood mass	20	@ 25½
reed	42	@ 47½
Ergot, Spanish	24	@ 26
German	19	@ 21
Gelatine, English	50	@ 60
French	30	@ —
American	85	@ —
Glucose	2¾	@ 3½
Grape sugar	2¾	@ 3
Glycerine, German, refined, dms	17	@ —
Amer'n, ref. bbls & cs	17½	@ 19
No. 1	16	@ 17½
Glycerine, crude	11½	@ 12
Guarana, whole	1 25	@ 1 30
Powdered	1 35	@ 1 40
Iceland moss	4½	@—
Indian hemp (Canabis In)	7	@ 12
Insect powder	45	@ 50
Irish moss	5	@ 10
Isinglass, Russian	3 50	@ 3 75
American ordinary	70	@ 75
prime	90	@ 1 50
Iodine, re-sublimed	3 50	@—
Licorice paste, domestic	13	@ 29
foreign	24	@ 29
Lupulin, American ₩ lb	70	@—
German	50	@—
Lycopodium, prime	38½	@ 40
Manna, large flake	70	@ 72½
Small flake	35	@ 37½
Sorts	30	@ 35
Menthol	1 50	@ 2 00
Musk, true grain ₩ oz	38 00	@40 00
Tonquin pods	25 00	@26 00
Canton grains	20	@ 1 00
Nitrate barium ₩ lb	8	@ 8½
Strontia ₩ lb	9½	@ 10
Nux vomica, pockets ₩ lb	3½	@ 3¾
Oil, almond, sweet	20	@ 37
Myrbane, American	16	@ 18
English	16	@ 18
German	—	@—
Sesame ₩ bbl	70	@ 75
Castor, city, bbls & cases	11½	@ 12½
Cod liver Norwegian ₩ bbl	22 50	@28 00
Newf'land ₩ gal.	65	@ 70
Phosphorus ₩ lb	70	@ 75
Precip, red	83	@ 85
White	88	@ 91
Precipitated chalk, Eng. bk	5	@—
bbls	7	@—
Potassium, bromide, bulk	34	@—
glass	42	@ 43
Iodide, bulk	2 70	@ 2 75
glass	2 78	@ 2 85
Quicksilver	63	@ 65
Sago, pearl	3½	@ 3¾
Flour	3½	@ 4
Sugar of milk cob	16½	@ 17
Powdered	17	@ 18
Sulphur, roll	—	@ 4½
Flour	—	@ 2
Salicine	2 20	@ 2 25
Tamarinds ₩ keg	—	@ 5 00
Venice turpentine ₩ lb	18	@ 20
Wax, brown southern	26	@ 27
State	25	@ 26
Brazil	12½	@ 15
White, pure	40	@ 45
Japan	13½	@ 15
Carnauba	10	@ 16
Ceresin	10½	@ 11

Balsams.

Copaiba, Angostura ₩ lb	—	@ 62½
Para	56	@ 58
Central	52½	@ 54
Fir, Canada ₩ gal	3 00	@3 55
Oregon	90	@1 10
Peru ₩ lb	1 00	@1 05
To.u	34	@ 40

Barks.

Angostura ₩ lb	18	@ 20
Bayberry	7	@ 8
Buckthorn	8	@ 12
Cascarilla	9	@ 10
Canella	12	@ 12½
Cinchona, red	20	@ 45
yellow	2	@ 25
Coto	30	@ 35
Elm, common	9	@ 10
selected	13	@
Loxa	30	@ 32
Oak, white	3½	@ 4
red	3½	@ 4
Orange peel, West Indian	4	@ 6
Malaga, prime	7	@ 10
Curacoa	7½	@ 15
Prickly ash	10	@ 12
Pomegranate (of root)	—	@
Quebracho	12	@
Sassafras	8	@ 4
Simaruba	14	@ 25
Soap, whole	5	@ 6
crushed	6½	@ 6¾

Beans.

Vanilla, Mexican ₩ lb	4 50	@13 00
Bourbon	2 50	@ 8 00
Tonka, Angostura	1 30	@ 1 40
Surinams	80	@ 90
Para	50	@ 60
Calabar	22	@ 25
St. Ignatius	50	@ 55

Berries.

Cubeb ₩ lb	1 40	@ 1 75
Juniper	3½	@ 4
Fish (Cocculus Ind)	4	@ 4½
Laurel	5	@ —
Prickly ash	20	@ —

Essential Oils.

Anise ₩ lb	1 55	@ 1 57½
Almond (bitter)	2 50	@ 6 75
Bay, ₩ bottle of 22 ozs	6 00	@ 6 50
Bay oil, ₩ lb	3 62½	@ 4 73
Bergamot	2 25	@ 2 70
Black pepper	65	@ 5 50
Cajeput	67½	@ 70
Camphor	7½	@ 11
Caraway, seed	1 95	@ 1 50
chaff	40	@ 52½
Cassia	70	@ 75
Citronella	33	@ 35
Clove	1 45	@ 1 60
Copaiba	70	@ 75
Croton	95	@ 1 00
Cubebs	14 00	@14 50
Cumin, American	3 50	@ 5 50
Fennel	85	@—
seed	1 50	@—
Geranium, Turkish	3 00	@ 3 50
rose, French	8 00	@ 9 50
Gingergrass	3 25	@—
Juniper, once rect	—	@ 1 10
twice rect	1 75	@ 2 10
wood	27	@ 37
Lavender, garden	70	@ 85
flowers	2 00	@ 2 25
Lemon	1 15	@ 1 70
Lemongrass	65	@ 67½
Neroli, bigarade	40 00	@45 00
Portugal	27 50	@—
Petale	50 00	@—
Nutmeg	2 10	@ 2 35
Orange, sweet	1 15	@ 1 60
bitter	1 65	@ 4 00
Origanum	18	@ 25
Peppermint, tin cans	2 40	@ 2 65
cases	3 25	@ 3 35
Pennyroyr'	90	@ 1 00
Rose, ordinary ₩ oz	4 65	@ 4 75
special brands	4 25	@ 5 20
Rosemary, Trieste ₩ lb	47½	@—
French	—	@ 26
Flowers	70	@ 1 10

Sandalwood		2 25	@10 50
Sassafras		67	@ 70
Spearmint		2 00	@ 2 75
Tansy		2 95	@ 3 50
Thyme, red		21	@ 82½
	white.	30	@ 1 10
Wintergreen		1 85	@ 1 90
Wormseed		1 50	@ —
Wormwood		4 50	@ 5 00

Flowers.

Arnica	℔	7½	@ 10
Chamomile, German		18	@ 25
	Roman (new)	25	@ 40
Insect		45	@ 55
Lavender		3	@ 7
Rosemary		15	@ 20
Saffron, American		18	@ 20
	Alicante	—	@10 00
	Valencia	13 50	@14 50

Gums.

Aloes, Cape	℔	5½	@ 7
	Barbadoes	19	@ 25
	Curacoa	4	@ 6
	Socotrine	40	@ 52
Arabic, 1st picked		84½	@ 97
	2d picked	74½	@ 77
	3d picked	64½	@ 67
	4th picked	54½	@ 57
	Sorts	52	@ 70
	Siftings	25	@ 40
Senegal, picked		54	@ 55
	sorts	34	@ 40
Asafœtida		8½	@ 10
Benzoin		25	@ 30
Camphor, refined, in bbls		27	@ 30
	in cases	28	@ 31
Chicle		25	@ 26
Euphorbium		15	@ 17
Gamboge, pipe and block		56	@ 65
Gedda, siftings		—	@ —
	sorts	22	@ 25
Guaiac		25	@ 30
Kino		11	@ 12
Mastic		82½	@ 85
Myrrh		20	@ 32
Olibanum, tears		15	@ 18
	sorts	6½	@ 7½
Sandrac		17	@ 20
Scammony, Aleppo		25	@2 50
	Virgin	7 50	@ —
Tragacanth, Aleppo, 1st flake		41	@ 43
	2d flake	35	@ 38
	3d flake	30	@ 32
	Turkey, 1st flake	70	@ 75
	2d flake	55	@ 57½
	3d flake	40	@ 45

Herbs and Leaves.

Aconite	℔	9	@ 11
Althea		8	@ 10
Belladonna		12	@ 15
Buchu, short		5½	@ 7
	long	20	@ 25
Coca		25	@ 32
Damiana		25	@ 28
Digitalis		6	@ 9
Eucalyptus		4	@ 5½
Grindelia robusta		12	@ 14
Henbane (hyosciamus)		12	@ 14
Horehound		6	@ 8
Jaborandi		25	@ 27
Laurel		3½	@ 4
Lobelia		4	@ 7
Matico		20	@ 22
Marjoram, German		14	@ 20
	French	9	@ 11
Prince's pine		—	@ 8
Rose, red		1 00	@1 25
	pale	45	@ 50
Rosemary		3	@ 4
Sage, Italian		2½	@ 2½
Senna, Alex. nat		24	@ 25
	siftings	19	@ 21
	garbled and sifted	34	@ 35
	Tinnivelly	12	@ 25
Thyme		4½	@ 10
Uva Ursi		4	@ 4½
Yerba Santa		12	@ 14

Roots.

Aconite	℔	10	@ 12
Alkanet		7½	@ 9
Althea, whole		12	@ 12½
	cut	14	@ 16
Angelica, German		10	@ 12
	American	9	@ 10
Arrowroot, Bermuda		31	@ 35
	St. Vincent, bbls &cns	6	@ 7
	Jamaica	10	@ 11
Arnica		7½	@ 8
Belladonna		8	@ 12
Blood		10	@ 12
Burdock		7½	@ 8
Calamus, bleached		—	@ 40
	unble'd, split & peeled	19	@ 24
Canada snake, select		34	@ 38
Colchicum		—	@ 10
Colombo		8	@ 11
Culvers		15	@ 16
Dandelion, German		10	@ 12
	American cut	11	@ 12
Elecampane		6	@ 8
Galangal		3	@ 3½
Gentian		4½	@ 5
Ginseng		2 35	@2 50
Ginger, Jamaica, unbleached		14½	@ 16
	American, bleached	16	@ 16½
	London, bleached	16	@ 16½
Golden seal		50	@ —
Hellebore, white, powdered		9	@ 9½
	whole	5½	@ 6
Ipecac, Rio		1 65	@1 75
Jalap			@ 12
Kava Kava		18	@ 20
Lady slipper		12	@ 15
Lovage, American		40	@ 50
	German	9	@ 20
Licorice, ordinary		5	@ 7
	selected, in bdls	12½	@ 20
Mandrake		—	@ 5
Orris, Florentine		13	@ 16
	finger	48	@ 75
	Verona	6	@ 6½
Pareira brava		20	@ 25
Pellitory		16	@ 18
Pink		25	@ 30
Rhatany		5	@ 8
Rhubarb, whole		20	@ 70
	cut	60	@1 50
Sarsaparilla, Honduras		20	@ 30
	Mexican	7½	@ 8
	American	6	@ —
Senega, Southern		60	@ 62
	Western	—	@ 62
Serpentaria, Texas		30	@ 35
Stillingia		8	@ 10
Squills, ordinary		—	@ 5
	white, prime	5	@ 6
Valerian, German		10	@11
	Belgian	6½	@ 7
	English	—	@ 17
	Vermont	10	@ 11
Yellow dock		7	@ 9

Seeds.

Anise, Italian	℔ b.	8½	@ 10½
	German	—	@ —
	star	25	@ 26
Canary, Sicily		2½	@ 3
	Smyrna	2½	@ 2¾
	Spanish	2½	@ 3
Caraway, Dutch		6	@ 6½
	German	—	@ —
Cardamom, Alleppy		45	@ 80
	Malabar	65	@ 85
	Mangalore	60	@ 1 50
Celery		12	@ 12½
Colchicum		38	@ 40
Clover		9	@ 11
Coriander, English		4½	@ 5
	French	4½	@ 5
	German	4	@ 4½
Cummin		12½	@ 13
Fennel, German		7	@ 8
Fœnugreek		2½	@ 3
Guinea grains		8	@ 8½
Hemp, Russian		2¾	@ 3
	Smyrna	—	@ —
Lobelia		25	@ 30
Millet, domestic	℔ bush.	1 10	@ —
	foreign ℔ b.	2½	@ 2½
Mustard, California yellow		3½	@ 3½
	brown	4½	@ 5
	Dutch	3¾	@ 4
	English	4½	@ 5
	Trieste brown	5½	@ 7
Poppy		5½	@ 6½
Quince, German		55	@ 60
	Russian	28	@ 30
Rape, domestic		3½	@ 4
	English	4	@ —
	German	3½	@ 4
Timothy		2½	@ 2½

Shellac.

D. C.	℔ b.	24½	@ 25
Octagon B		20	@ 21
V. S. O		—	@ 21
Diamond I		19	@ 20
S. S		—	@ 18
Garnet, A C		12	@ 13
T. N. quality		—	@ 15
Natives		13	@ 14
Button		16	@ 18
Bleached		20	@ 21

Spices.

Cassia, Batavia	℔ b.	3½	@7
	China	4¾	@ 4¾
	Saigon, rolls	30	@32
	broken	24	@26
	chips	6	@ 8
	buds	9½	@10
Cloves, prime, Zanzibar		18	@18½
	Amboyna	—	@28
	stems	5½	@ 5½
Ginger, African		4½	@—
	Calcutta	3½	@ 3¾
	Cochin	6	@10
Mace, Batavia		60	@—
	Banda	65	@—
	Penang	65	@—
Nutmegs, 110's		56	@57
Pepper, Singapore		15¾	@16
	West Coast	10½	@15½
	Acheen, prime	14½	@15½
	Penang, white	—	@24
	Singapore, white	—	@26
	red, Zanzibar	9	@ 9½
	Bombay	—	@ 8
Pimento, prime		6¾	@ 7

Chemicals.

Heavy Chemicals.

Alkali, 36 ℘ cent		1 12½	@1 15
	refined, high test	1 15	@1 25
Bleach, over 35 ℘ cent		2 00½	@2 25
Saltcake		50	@ 57½
Soda ash, carb, 48 per cent		1 25	@1 37½
	high test	1 12½	@1 15
	Caustic, 48 ℘ cent	1 80½	@1 95
Soda ash, caustic high test		1 12½	@1 15
	Newcastle, 48 per cent	1 25	@1 37½
	high test	1 15	@1 20
Soda bicarb, English		3 10	@3 35
	American	3 00	@3 50
	carbonate	1 75	@1 80
	caustic, 60 ℘ cent	2 60	@2 87½
	70 ℘ cent	3 40	@3 45
	74 ℘ cent	3 37½	@3 42½
	76 ℘ cent	2 75	@2 80
sal, English		95	@1 00
	American	95	@1 20

Acids.

Acid, acetic		2½	@ 2½
	chemically pure	16	@ 17
	pure	5½	@ 8½
	oxalic	8	@ 9
	sulphuric, 60 deg	90	@ 95
	66 deg	95	@1 2o
	muriatic, 18 deg	1 15	@1 20
	20 deg	1 30	@1 50
	22 deg	1 40	@1 80
	nitric, 36 deg	4	@ 5½
	38 deg	4½	@ 6
	40 deg	5	@ 6½
	42 deg	5½	@ 7
	tartaric, crystals	43	@ 44
	powdered	44	@ 45

Ammonias, Potashes and Fertilizing Chemicals.

Ashes, pot, 1st sorts	℔ b.	4	@ 4¼
	pearl	5	@ 5¼
Potash, chlorate, English		15	@ 15½
	powdered	—	@ 15½
	carb	4 70	@ 5¼
	caustic	7½	@ 8
	cyanide, fused	39	@ 40
	bdl m'u'e salt 48@50%	1 17½	@ 1 20
	sulphate of, basis 90%	2 30	@ —
Aqua ammonia (in cbys) 16%	℔ b.	3½	@ 3¾
	18%	—	@ 4¾
	20%	—	@ 6
	22%	6	@ 7
	26%	10	@ 11
Ammonia, muriate		5½	@ 8
	sal	3 17½	@ 3 20
	sulphate	3 34	@ 3 45
Ammonias, Etc.:			
Azotine, ℘ unit		2 55	@ 2 65
Blood, dried, red, ℘ unit, west		2 55	@ 2 65
	low grade, ℘ unit	2 50	@ 2 55
Bones, rough, ℘ ton		18 00	@20 00
	ground, ℘ ton	23 00	@25 00
Bone black, refuse, ℘ ton		19 00	@19 50
Kieserite		5 75	@ 6 25
Menhaden guano		25 00	@26 00
Phosphate rock, f. o. b. Charleston		5 60	@ 6 00
Phosphate rock, ground		10 00	@10 50
Acid phosphate, 14% per unit		75	@ 80
Potash muriate, ℘ 100 ℔		1 82½	@ 1 95
Kainit, 23% S. of P. ℘ ton		9 75	@10 50
Manure Salts, 27@28% S. of P., per gross ton, in bags		—	@12 00

Miscellaneous.

Acetate of lime, gray		2 10	@ 2 12½
	brown	1 15	@ 1 10
Alum, lump		1¾	@ 1¾
	ground	1¾	@ 2
	Cake	1¾	@ 1¾
Argols, crude Oporto		—	@ —
	plate	23	@ 24
	half refined	28	@ 32
Arsenic, white		3	@ 3½
	red	5½	@ 5¾
Brimstone crude, best 2ds		20 00	@23 00
	3ds	19 50	@21 00
Copperas, ordinary		—	@ 6½
	best grades	75	@ 1 00
	powdered	1¾	@ 1¾
Cream tartar, crystals, 99 p. c.		31	@ 31½
	powdered, 99 p. c.	31¾	@ 32½
Glauber salts		75	@ 80
Epsom salts		1 15	@ 1 20
Nitrate of lead		9	@ 10
	soda	2 22½	@ 2 25
Rochelle salts		28	@ 30
Sugar lead, brown		7½	@ 8
	white	13	@ 13½
Saltpeter, crude		5	@ 5½
	refined	6	@ 8
Vitriol, blue ordinary		5¾	@ 6¼
	extra	6½	@ 6¾

Dyestuffs.

Acid picric best crystals	℔ b.	50	@ 55
Albumen prime egg		65	@ 70
	imported blood	17	@ 20
	domestic blood	15	@ 16
	No. 1½ blood	—	@ —
Alizarine		18	@ 20½
Annatto		12	@ 25
	seed	10	@ 16
Archil weed		7	@ 15
Aurine		58	@ —
Barbary root, cut		4	@ —
Bichromate of potash, Scotch		10½	@ 11
	American	10½	@ 11
Bichromate of soda		8½	@ —
Carmine of indigo		40	@ —
Cochineal, Teneriffe silver		30	@ 32
	black	30	@ 32
	gray black	33	@ 35
	Mexican	—	@ 37
	ammoniac	—	@ —
Cudbear, French		2	@ —
	concentrated	25	@ —
	English	12	@ 30
Cutch, slab		7½	@ 7¾
	bag	5½	@ 5½
Dextrine		5½	@ 6
Divi divi	℘ ton.	45 00	@60 00
Fullers earth, lump	℔	90	@ 95
	powdered	1¾	@ 2
Flavine		21	@ 23
Fustic stick	℘ ton	23 00	@25 00
Gambier	℔	5½	@ 5¾
Garancine		8½	@ 9
Indigo, Bengal, low grade		78	@ 85
	medium	1 10	@ 1 25
	high grade	1 25	@ 1 40
	Caracas	—	@ —
	Kurpahs	75	@ 1 05
	Gautemalas	70	@ 80
	Manila	70	@ 75
	Madras	65	@ 85
Indigotine		3 00	@ 4 00
Lac dye		9	@ 15
Logwood stick	℘ ton	—	@40 00
Madder, Dutch	℔	7½	@ 8
	French	5	@ 7
Myrobalans		2	@ 2½
Muriate of tin		10	@ 15
Nitrate of iron, commercial		2	@ 3
	true	5	@ 6
Nutgalls, blue Alleppo		15½	@ 16 ¼
	Chinese	16	@ 16½
Oxymuriate of antimony		4	@ 6
Persian berries		15	@ 17
Prussiate of potash, Am. yellow		—	@ 19
	red	42	@ 45
	Scotch yel.	19	@ 20
	red	42	@ 45
Prussiate of soda		17½	@ 18
Phosphate of soda		7	@ 8
Safflower		—	@ —
Sago flour		3½	@ 3¾
Salts of tartar		6½	@ 7
Soluble oil		—	@ 6
Sumac, Sicily prime	℘ ton.	63 00	@70 00
	Virginia	37-50	@ 42-50
Starch, corn	℔	2¾	@ 2¾
	potato	4½	@ 4¾
	wheat	6	@ 7
Stannate of soda, 50% soluble		—	@ 15
Stannate of soda, 40% soluble		—	@ 12
25% soluble		—	@ 9
20% soluble		—	@ 8
Tin crystals		17½	@ 20
Turmeric root, Alleppy		3	@ 3½
	Bengal	—	@ —
	Corringa	3	@ 3½
	powdered	5	@ 6
Ultramarine, imported		20	@ 30
	American	5	@ 16
Vanadiate, ammonium		90	@ 1 00
Woad, English		9	@ 10
Coal Tar Colors:			
Alizarine		19	@ 20
Aniline oil		20	@ 25
	salt, crystals	16	@ 18
	cake	20	@ 21
Bismarck brown		80	@ 1 20
Eosine		2 40	@ 3 00
Fast red		50	@ 65
Fast yellow—acid		75	@ 1 50
Fuchsine crystals		1 25	@ 1 75
Hoffman's violet—3B		1 75	@ 2 50
Methylene blues		4 50	@ 6 75
Methyl violets—2R		1 50	@ 2 00
	2B	1 50	@ 2 00
	B	1 50	@ 2 00
Nicholson (alkali) blue—3B		2 25	@ 3 00
	5B	3 75	@ 4 00
	Red shade	2 00	@ 2 25
Nigrosine		1 35	@ 2 00
Orange A—II		40	@ 65
Safranine		1 75	@ 2 25
Scarlet R		45	@ 55
	RR	50	@ 65
	RRR	70	@ 75
Soluble blue—green shade		2 00	@ 3 50

These prices are for colors of standard purity in original packages. Reduced colors can be obtained at irregular and very much reduced figures.

Chipped Dyewoods, Etc.:			
Barwood	℔ b	1¾	@ 2¼
Camwood		4½	@ 8
Fustic, com		1½	@ 1½
	Cuban	1½	@ 1⅝
Green ebony		3½	@ 4
Hypernic		3½	@ 4¼
Logwood, Campeachy		2	@ 2½
	Laguna	2	@ 2½
Nicwood		2	@ 3
Peachwood		3½	@ 3½
Quercitron		1½	@ —
Redwood		2	@ 3
Red sanders		—	@ 3
Extracts:			
Archil	℔ b	—	@ 35½
	concentrated	21	@ —
Black oak		23½	@ 28¼
Barberry, French		26	@ 30
Chestnut		5½	@ —
Chestnut oak		3½	@ —
Refi'd sedimentless hemlock		4½	@ 6
Prime hemlock		3½	@ 4
Fustic, solid		10¾	@ —
	liquid, 51 deg	8	@ —
Indigo extract		7¾	@ —
Logwood, solid		9½	@ 11
	liquid, 51 deg	6½	@ —
	42 deg	5½	@ —
Persian berries, French		22	@ —

COMPARATIVE PRICES.

	1887.	1886.	1885.
Chemicals.			
Bleaching powder	2 12½	1 95	1 60
Caustic soda, 70%	2 40	2 50	2 60
Caustic soda, 60%	2 57½	2 c0	2 80
Sal soda	1 12½	90	1 95
Soda ash, 48% carb	1 25	1 25	1 40
Soda ash, 48% caustic	1 17½	1 25	1 35
Soda ash, 48-58% N. C.	1 10	1 17½	1 30
Soda alkali, 58% B. M.	1 20	1 17½	1 40
Soda nitrate	2 05	2 00	2 40
Brimstone	$20 50	$20 75	$22 00
Cream tartar	34¼	34¼	34¼
Muriate of potash	1 70	1 70	1 67½
Chlorate of potash	15	16¼	21
Kainit	7 25	7 25	7 25
Paints.			
White lead in oil	6¼	7	6¼
Litharge	5½	5½	5
Paris green	18	16	16
Orange mineral	7¾	7¾	8⅜
Ven. red, English	1 40	1 40	1 40
Ven. red, American	1 00	1 00	1 25
Barytes	$16 00	$18 50	$16 00
Whiting, Commercial	45	35	40
Drugs.			
Opium	$4 40	$2 90	$3 45
Morphine, domestic	2 85	1 80	3 00
Quinine, German	58	48	85
Quinine, domestic	40	50	85
Cinchonidia, domestic	8	8	12
Alcohol	2 03	2 14	2 04
Borax, city	6¾	6¾	7½
Beans, tonka (Ang)	1 35	1 55	1 50
Cubebs	1 00	75	75
Cuttlefish	19½	11½	14
Glycerine, American	19½	16	18
Oil, castor, city	17	17	18
Oil, codliver, Nor	28 00	24 00	35 00
Quicksilver	53½	54	43
Oil, bergamot	2 37½	1 90	2 00
Oil, cassia	80	80	87
Oil, cubebs	10 00	7 00	7 00
Oil, lemon	1 15	1 50	1 75
Oil, peppermint, tins	2 00	2 25	3 50
Oil, sassafras	43	35	48
Aloes, cape	5¾	7	8½
Asafœtida	9	11½	16
Gum arabic, 1st picked	92½	82½	50
Gum aribic, sorts	57½	52½	28
Camphor	22¾	23	23
Shellac, D C	20	21	19
Senna, Alex. Nat'l	29	30	13½
Gentian root	3¾	4½	4½
Ipecac	1 15	82½	82½
Canary seed, Smyrna	2½	2⅝	2⅞
Caraway seed, Dutch	6¾	8½	11
Coriander, English	5	5	6
Hempseed	2	2½	3¼
Mustardseed, Cal. yel	4½	5	5¾
Mustards'd, Trieste, br	7	5½	6¾
Rapeseed, English	4	4½	3¾
Rapeseed, German	3¾	4	3¾
Oils.			
Linseed, domestic	47½	42	45
Cottonseed, prime S. Y	47½	38	37½
Olive, Sicily	67	78	80
Palm, prime	4⅞	5¼	6½
Cocoanut, Ceylon	5½	6¼	6
Lard, prime city	53	51	51
Menhaden, prime cde	20	21	22½
Whale, bleached win'r	40	41	50
Sperm, bleached win'r	70	82	95
Paraffine, 25 gravity	8½	8½	10¼
Neutral, 34 gr. b'less	15	16	15
Black, 29 gr. 15°	7½	8	8½
Cylinder, 600°	15	15	17
Oil cake, western	22 00	24 50	27 50
Spirits turpentine	37	38	36¼
Dyestuffs.			
Cochineal, Teneriff S	30	30	30
Cutch	7¾	6¾	5¾
Gambier	5½	4½	4⅞
Indigo, Bengal h grade	1 25	1 45	1 40
Bichromate potash	10¼	9⅞	9⅞
Prussiate potash, yel	19	19	21
Sumac, Sicily prime	68 00	72 00	85 00
Starch, west'n corn bls	2¾	2¾	2¾

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side wall of the said rotatable furnace, a tank or drum, and a governor, a pipe, leading from a pump or pressure supply to said drum, having branch extending therefrom to said governor, and a pipe connection extending from an air pump or pressure supply to said drum, a pipe extending therefrom to said burner tank having intermediate of its length a branch pipe, extending therefrom to said governor, said oil and air conduit pipes having two shut-off cocks in advance of said burner tank, a chamber having a flue in communication with said furnace opening, and chimney opening, and boiler, located in said chamber between said flue and said chimney opening, all substantially as described, and for the purposes set forth.

The Hybridization of Chinchonas.

BY DAVID HOOPER, F. C. S., F. I. C.

The hybridization of plants belongs to the department of vegetable physiology, and when plants contain alkaloids and principles which admit of precise quantitative determination, the process of Nature might well be studied from a chemical point of view. Cinchona hybrids have received a great deal of attention from a number of botanists, and without reproducing the different conclusions arrived at, and only using botanical terms sufficient for explanation, I intend to treat the subject in the light of the chemical analysis of the barks.

There are two well-defined species of Cinchona on the plantations of the Madras Government, the one is C. succirubra (Pavon), yielding red bark, and the other C. officinalis (Hooker), yielding the crown bark of commerce. Between these two species, many hybrid barks are recognized, and have been cultivated and exported to a very large extent from this country, and the time has come when their nature should be throughly investigated. The facility with which these plants made their appearance on the estates seems to imply that forms of cinchona were produced that were more adapted to the climate and situation of their adopted country than the parent forms brought originally from South America. Those having a greater vigor of growth should be propagated, as the robust habit is usually indicative of a richer bark. Hybrids assume the quick growing character of the succirubra, yet they contain a greater proportion of quinine than that species. They do not as a rule contain the percentage of quinine usual to officinalis, but the large quantity of bark yielded by the tree, and the high total alkaloids, make them equal in value to the best crown barks.

It will first be necessary to discuss the alkaloidal composition of the two species between which hybridizatison on the plantations has taken place, and for this purpose the analyses of natural stem bark will be quoted, excluding branch, root, and all barks submitted to artificial treatment. Cinchona succirubra has a peculiar centesimal arrangement of alkaloids in its bark varying between certain limits. In the following table it will be seen that in fifty selected barks the quinine ranges from 17 to 27 per cent., cinchonidine from 26 to 51 per cent., chinchonine from 17 to 47 per cent., and amorphous alkaloids from 4 to 23 per cent.; besides these the alkaloid quinidine occurs in traces in red barks, and occasionally reaches 0·5 per cent.

COMPOSITION OF ALKALOIDS IN RED BARKS.

Quinine.	Cinchonidine.	Cinchonine.	Amorphous Alkaloids.
17·6	43·4	29·4	9·6
17·8	35·3	38·3	8·6
18·0	39·8	34·5	7·7
18·3	29·6	43·1	8·8
18·9	51·7	25·4	4·0
19·0	27·0	42·0	12·0
19·2	33·3	38·7	8·8
19·4	30·7	40·1	9·8
19·6	48·4	26·4	5·6
19·7	36·6	37·3	6·4
20·0	27·0	46·0	6·1
20·0	30·0	40·0	10·0
20·3	41·4	26·8	11·5
20·4	36·7	32·4	10·5
20·6	33·9	32·6	12·9
20·9	42·9	29·1	7·1
21·3	42·1	21·5	15·1
21·4	26·5	42·6	9·5
21·5	35·6	24·9	18·0
21·6	37·1	26·7	14·6
21·6	34·3	37·3	6·8
21·9	34·7	31·5	11·9
22·1	34·9	29·7	13·3
22·2	36·6	33·4	7·8
22·2	36·8	23·1	17·9
22·4	35·4	30·0	12·2
22·4	32·6	32·8	12·2
22·6	35·4	35·4	6·6
22·7	39·3	23·0	15·0
22·7	44·5	28·8	4·0
23·0	41·0	27·5	8·5
23·1	20·1	35·7	15·1
23·1	33·7	34·2	9·0
23·5	42·3	18·2	16·0
23·5	28·3	24·4	23·8
23·5	38·6	27·9	10·0
23·7	36·2	26·1	14·0
23·9	36·5	25·4	14·2
24·4	35·4	31·0	9·2
24·5	37·1	32·9	5·5
24·7	36·9	32·1	6·3
24·8	37·7	27,7	9,8
25·2	36·6	29·0	9·2
25·6	37·3	29·2	7·9
25·6	29·2	30·0	15·2
25·6	27·4	32·8	14·2
26·0	41·3	21·1	11·6
26·3	38·3	17·6	17·8
26·4	35·4	28·0	10·2
26·8	44·3	22·8	6·1
Av 22·2	36·1	30·9	10·8

The average of the fifty total alkaloids is 6·25 per cent. The British Pharmacopœia, 1885, directs that "it should yield between 5 and 6 per cent. of total alkaloids, of which not less than half shall consist of quinine and cinchonidine." Reference to the table shows that, with the exception of five samples, all are official barks; Nos. 4 and 11 were sent from the Wynaad, No. 6 was taken from one of the oldest trees on the plantation, No. 18 came from Ceylon, and No. 32 from Travancore; of these five none fall seriously below the Pharmacopœia standard, and all yield over 6 per cent. of total alkaloids. Most of the barks were taken in strips, but Nos. 25, 34, 47 and 48 were taken by the shaving process, and although shavings are not in accordance with the official description, they are rich in alkaloids and exhibit a remarkable decrease in cinchonine. During the discussion on the present Pharmacopœia, a critic remaked that the test admitted barks containing 2½ per cent. of quinine, and ½ per cent. of cinchonidine, or those containing ½ per cent. of quinine, and 2½ per cent. of cinchonidine with 3 per cent. of other alkaloids, but it would be very surprising to find such an erratic composition in any one kind of cinchona that I am acquainted with.

By taking the average composition of the alkaloids, and calculating from the average yield of total alkaloidal contents, we arrive at the composition of a typical succirubra bark.

TYPE OF A SUCCIRUBRA.

Quinine	1·40
Cinchonidine	2·35
Cinchonine	1·92
Amorphous Alkaloids	·68
	6·25

Cinchona officinalis has quite a different arrangement of alkaloids in its bark, which, like the former, are found within certain limitations. In the following table of analyses made on selected barks, nearly all from the Nilgiris, the quinine ranges from 48 to 62 per cent. the cinchonidine from 18 to 33 per cent., the quinidine from 0 to 6 per cent., the cinchonidine from 2 to 16 per cent., and amorphous alkaloids from 4 to 13 per cent.

COMPOSITION OF ALKALOIDS IN CROWN BARKS.

Quinine.	Cinchonidine.	Quinidine.	Cinchonine.	Amorph's Alkaloids.
48·2	26·7	—	16·1	9·0
50·2	30·5	—	12·5	6·8
50·4	31·5	1·5	6·8	9·8
50·5	24·5	—	14·3	10·7
51·4	29·1	3·0	7·2	9·3
52·1	28·0	—	10·1	12·8
52·2	25·6	3·1	12·8	6·3
52·2	24·4	3·0	9·6	10·6
52·4	30·3	—	8·1	9·2
52·4	31·6	—	6·6	9·4
52·7	30·3	1·4	7·8	7·8
53·3	26·0	5·3	7·4	8·0
54·2	26·2	3·4	11·0	5·2
54·6	29·1	2·0	10·9	6·4
54·7	26·5	2·0	5·6	11·2
55·0	26·7	1·9	6·7	9·7
55·1	26·9	—	9·4	8·6
55·2	25·6	1·9	7·9	9·4
55·5	27·0	—	9·2	8·3
55·5	29·3	·5	8·7	6·0
55·8	23·1	1·5	7·8	12·8
56·0	25·8	—	11·7	6·5
56·0	18·6	—	13·0	12·4
56·0	24·9	tr.	11·1	8·0
56·3	28·5	1·4	8·0	5 8
56·3	25·1	—	7·4	11·2
56·4	21·5	—	16·7	5·4
56·5	28·1	4·1	7·9	3·4
56·5	25·0	2·1	4·2	12·1
56·6	28·8	1·0	4·7	8·9
56·8	27·4	1·7	6·6	7·5
56·8	27·6	·8	9·5	5·3
56·9	26·4	1·6	6·6	8·5
57·0	20·8	—	14·6	7·6
57·3	27·9	·9	3·6	10·3
57·4	25·6	2·9	7·1	7·0
57·8	26·7	2·2	6·1	7·2
57·8	26·6	2·3	6·1	7·2
58·0	28·1	2·1	5·4	6·4
58·4	29·2	2·3	5·0	5·1
58·6	28·6	2·5	5·3	5·0
58·8	24·8	2·4	4·0	10·0
59·4	26·0	1·5	3·9	9.2
59·8	27·9	—	4·7	7·6
59·9	33·2	—	2·0	4·9
60·0	29·1	2·2	2·2	6·5
60·1	25·4	1·0	8·5	5·0
60·9	26·9	1·4	5·8	5·0
61·6	22·2	4·7	4·8	6·7
62·1	25·0	2·2	3·5	8·1
Av 55·9	26·7	1·5	8·0	7.9

The crown barks in this table give an average of 5·25 per cent. of total alkaloids, hence the composition of a typical officinalis is thus represented:

TYPE OF OFFICINALIS.

Quinine	2·93
Cinchonidine	1·40
Quinidine	·08
Cinchonine	·42
Amorphous alkaloids	·42
	5·25

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This widely known brand of Oil of Rose has been sold in Europe for 35 years and in the United States for ten years. It has made itself popular by maintaining two points of excellence, namely, purity and uniformity for which it is noted, as is evidenced by the constantly increasing trade.

Consumers ought to lay greater stress on uniformity which is very important in considering quality. An article which varies cannot give the same satisfaction to be found in one that is uniform. It is easy to understand why it is hard to influence a buyer of one brand to substitute another, as oil of rose is such a difficult article to analyze and a change is made only after careful consideration. Notwithstanding that Pappazoglou's brand is young in this market, we can affirm that in every instance when given a fair trial it never failed to make a solid customer. That it is popular wherever used and the leading brand in Europe where it is recognized as standard in quality, can be verified by the leading manufacturers in France and England. The fact that it received the highest medal at the Philadelphia centennial and Vienna expositions, when placed in competition with other brands, ought to be satisfying proof as to its merits.

It is not necessary to detail such facts for the benefit of present consumers who are its lasting friends, but we take this occasion to enlighten the general trade upon the subject and to caution buyers not to place faith in preposterous open letters "well got up and calculated to deceive."

It should be remembered that no charge is made for the name, the oil being sold at its actual value, and as the crop of roses was larger than usual this year, we are enabled to quote a very low figure.

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CHEMICAL MARKET.

Note—*Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures.*

The prices current will be found on page 50.

TUESDAY EVENING, Nov. 6, 1888.

Heavy Chemicals.

There is very little life to trade in the market for the heavy chemicals. Large buyers have manifested no interest and smaller consumers buy in a hand-to-mouth manner only. Notwithstanding the present dull condition of trade, dealers are confident of a good business after the fever and excitement of the presidential campaign have passed away. The position in all markets is a firm one, as apart from the scarcity of available supplies and the difficulty of securing freight room on advantageous terms, the increasing cost of raw material is expected to cause a considerable advance in the prices of manufactured goods in the near future. From Liverpool under date of Oct 27th, Messrs, J. P. Brunner & Co. write : "There is a good inquiry for caustic soda and bleaching powder for delivery over 1889, but there is not much going on for prompt delivery. Soda ash is inquired for from your side and makers are firm, as they have little to offer. Spot quotations are: caustic ash, 48%, 1s to 1 1-32s; high test 1s to 1 1-32s; carb Ash, 48%, 1s to 1 1-32s; High test, 1s to 1 1-32s. Soda crystals are in better demand as prices have improved, £2 10 to £2 12 6, being now nearest values. Caustic soda for prompt delivery is flat, owing to resellers pressing sales. We quote:—60%, £6 7 6 to £ 6 12 6; 70%, 7 10 to £7 12 6; 74%, £8 to £8 2 6; 76%, £9. For all 1889, a fair business has been done in 76%, at £7 7 6 up to £7 10, and at the close there is little offering even at the higher figure. The Caustic Soda Committee have ordered a 10% reduction in make to take place during November. Bleaching Powder is scarce and firm at £8, but there is little actual business reported. It is reported that sales have been made over 1889 at £7 17 6. Chlorate of potash is inquired for at the close and 5¾ is the lowest price. Bicarbonate of soda is held for at £4 10 to £4 15, according to brand and quantity.

Liverpool brands of carbonated soda ash, 48%, meet with only a moderate degree of attention, the general dullness in the consuming branches acting as a check upon trade in the commodity. The scarcity of supplies for immediate and early delivery prevents any depreciation in values, imparting in fact a very firm tone to the market. We have, therefore, to repeat our former quotations of 1 30@1 35c for goods in a small way from store and 1 25@1 27½c for lots to arrive, according to quantity and brand.

Newcastle soda ash 48% holds its own in the face of a small consuming demand, stock on the spot being very light and offerings for shipment extremely limited. Quotations, nominally, are 1 22½@1 27½c in lots to arrive as to quantity, and 1 30@1 35c for small parcels on the spot.

Caustic soda ash 48% occupies the same position as at the date of last writing. Buyers limit their purchases to small lots for the supply of passing requirements. There is not much to be had on the spot and for small lots from store dealers still demand 1 30@1 35c as to quantity. Stock to arrive or for shipment is also offered sparingly and the former range of 1 25@1 27½c is firmly adhered to though there are very few buyers of forward deliveries.

Refined alkali has a fairly good demand but small lots find most favor with buyers at present, as they do not appear to be disposed to stock up in advance of requirements. Sales of 58% are making at 1 15@1 17½c as to quantity, while 48% commands 1 22½@1 25c according to size of order. There is little or no demand for 36% and prices for this strength are entirely nominal.

Sal soda is without animation, the demand being confined to such small lots as buyers have immediate use for. Supplies here continue very small, but in the absence of important demand this has little or no perceptible effect upon the market. We continue to quote 97½@1c for goods on the spot those being the figures paid for the small lots changing hands. For arrival 95c is nominally quoted but some holders might shade this figure on a firm offer, for a round lot.

Bleaching powder is not so firm as at the date of our last issue, the arrivals of late, coming on a comparatively dull market, having induced holders to show a disposition to grant some concession to buyers. At the moment, while there is no quotable change, prices are somewhat nominal. We repeat our quotations of 2 06¼@2 12½c for goods to arrive, and 2 25@2 30c for small lots from store, according to quantity and seller.

Acids.

Acetic acid has continued to move in a small way for actual consumption, with the market bare of interesting items and prices quoted at 2¼@2½c.

Nitric and muriatic acids have been inquired for to a moderate extent but there are no features to the trading. Old figures are ruling.

Oxalic acid has not been active, the demand being merely for small lots sufficient to supply actual wants. Our previous quotations continue to rule at 8¾c per ℔ for ten ton lots, and 9c per ℔ by the single cask. This is for prime German and English makes, ex dock or store, New York, Philadelphia and Boston. Terms, net cash.

Tartaric acid is featureless, with a limited inquiry reported, and the following figure ruling, 43c for crystals, in quantities of 3,000 ℔s or more; in bbls, less quantity, 44c; in 50-℔ boxes, 45c. For powdered, a cent advance is asked over these figures.

Sulphuric acid. This article continues to be quoted, with firmness by dealers, who report that their works, are running to their fullest capacity in order to fill existing orders. Previous prices are named as follows, for 60°, 90@95c and for 66° 95c@$1.25.

Miscellaneous.

Acetate of lime has sold to a limited extent only, and the market is exceedingly quiet and featureless, at the reduced prices of 2 10@2 12½c for gray, and 1 05@1 10c for brown.

Blue Vitriol—The Western makers have advanced their prices ¼c. but no change has, as yet, been effected by the Eastern concerns. The demand is restricted, owing to the high prices ruling and the limited supplies available. Quotations are 5¾c for large lots, and 6c for smaller parcels.

Brimstone—The market is exceedingly firm both on spot and to arrive. Best seconds ex-steamer in port are quoted at $24, while to arrive, November and December shipment, $21 50@22 50 are asked, according to the position of vessels. We are indebted to Mr. A. S. Malcomson for the following: "The production this year will be less than last which was 390,757 tons. The exports are increased and amount from January to July (7 months) to Total tons :1888, 243,244; 1887, 237,023; 1886, 243 242; to American ports alone I note a large increase during same period: 1888, 71,681; 1887, 36,674, 1886, 48,192; the shipment during remaining five months will also be heavy and with curtailed production this year shippers are holding back for higher values."

Nitrate of Soda—The market is very strong, and prices in all cases have been well upheld. Sales to the extent of 5,000 bgs. are reported, on spot and to arrive, within the range of quotations, which are 2 22½@2 25c on spot and 2 15@2 20c to arrive.

Cream of Tartar—The tone of the market is one of weakness, with the trading limited, in common with business generally. Prices have undergone a reduction of one cent, the following figures now being quoted: 31@31¾c for crystals and 31¾@32½c for powdered, as to style of package and quantity. Terms, net cash, 30 days f o b New York, or less 1% for prompt cash.

Ammonias, Potashes and Fertilizing Chemicals.

The market for fertilizing chemicals has continued firm in tone, during the week under review, with the demand very fair. In one or two instances a further advance in values has been made. The following now rule: Azotine is quoted at $2 55@2 65, as to quality; dried blood, $2 50@2 55 for low grade Eastern in buyers' bags, and 2 55@$2 65 for high grade Western finely ground; tankage, $23@24 for high grade, and $21@22 for medium and low grades, as to quality; sulphate ammonia, $3 40@3 45: bone-black guaranteed 70% phosphate, $19@19 50 per ton; dissolved bone, 90c per unit; acid phosphate, 75c per unit; rough bones, $21 per ton for hard and clean foreign, and $18 00 for the usual run of domestic; ground bone, $24@25 as to grade; fish scrap, $24@25 f o b factory. Undried Charleston rock is held at $5 per ton, and kiln dried at $6, both f o b vessel, at the mines. Ground Charleston rock is now quotable at $10@10 50 ex steamer at New York.

Muriate of potash is very firm in tone, with business somewhat restricted, owing to the limited supply on spot Former figures are quoted at $1 82½@1 85 as to quantity.

Double manure salts have been inquired for to some extent, but are not available. The market is quotable at 1 15@1 20c basis of 48@50% potash. The market for sulphate is identical with the above, with $2 30 quoted per 100 lbs, basis of 90%.

Kainit is without change. Spot supplies are limited, in fact none are offered, and everything to arrive has been disposed of. The tone of the market is therefore very strong.

The Sulphur Monopoly in Sicily.

The establishment of a sulphur monopoly in Sicily in recent times suggests some useful lessons, which, as a commercial nation, we ought to take to heart, says the London *Chemist and Druggist*. In 1838 the Neapolitan government, in direct contravention of treaties, entered into a contract to grant a sole monopoly of this trade to a French company on certain conditions, viz., the construction of roads and the exportation of a third of the mineral produce in Sicilian vessels. Although this monopoly lasted but three short years the results recorded are surprising. From a commercial point of view sulphur is perhaps more necessary as a commodity used by civilized nations than salt. Mr. Crooks has described it as "the mainstay of present industrial chemistry." It is employed in enormous quantities in a vast number of chemical operations, the consumption being only limited by the supply. It is used in the manufacture of sulphuric acid, immense quantities of which are employed in the preparation of common

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soda, to be used, in its turn, for soap boiling, glass making, etc. The acid is also used to make many valuable forms of manure, in bleaching, the refining of metals, and, in fact, either directly or in directly, in manufactures of every shape or form. Sulphur is an essential constituent of gunpowder, and is used for a multitude of other purposes. The sulphur obtained from the mines in Sicily and the large consumption of sulphuric acid had caused immense sums of money to pour into that island and had introduced industry and capital into an otherwise desolate and poverty stricken district. Let us consider, then, the reshlts produced by this short-lived monopoly. Liebig said that, "Reflecting upon the important influences which the price of sulphur exercised upon the production of bleached and printed cotton stuffs, soap, glass, &c., and remembering that Great Britain supplied America, Spain, Portugal, and the east with these, exchanging them for raw cotton, silk, wine, raisins, indigo, &c., we can understand the English Government should have resolved to resort to war in order to abolish the sulphur monopoly which another power attempted to establish." The eminent chemist stated further that "in the short period the monopoly lasted no less than fifteen patents were taken out for methods to obtain back the sulphuric acid used in making soda. Admitting that these fifteen experiments were not perfectly successful, there can be no doubt it will ere long have been accomplished; only that in gypsum (sulphate of lime) and in heavy spar (sulphate of baryta) we possess mountains of sulphuric acid. In galena (sulphate of lead) and in iron pyrites we have no less abundance of sulphur. The problem is how to separate the sulphuric acid or sulphur from these native stores. Hundereds of thonsands of pounds weight of sulphuric acid were prepared from iron pyrites while the high prices of sulphur consequent upon the monopoly lasted. We should probably ere long have triumphed over all difficulties, and have separated it from gypsum. The impulse had been given, the possibility of the process proved, and it may happen in a few years that the inconsiderate financial speculation of Naples may deprive her of that lucrative commerce."

The establishment of this monopoly, therefore, clearly demonstrated that there were many other sources practically untouched from which sulphur and sulphuric acid could be, and indeed now are, obtained. It gave a lasting impetus to the British sulphur manufacture from iron pyrites and other mineral ores, and showed the practicability of obtaining back for subsequent use the sulphuric acid employed in making soda; it further proved that sulphur deposits in other parts of the world, particularly Iceland, were capable of being worked at a profit.

In the same way it will be found, if the salt mines of England be cornered or monopolized so as to affect seriously the prices of this inestimable mineral, that chemists and others will not be slow to look to other sources from which it is to be had. As chloride of sodium exists in large quantities in sea water, from which it is now to some extent obtained, and as the supply from this source is of course inexhaustible, its profitable extraction is, under higher prices, more likely to prove profitable, and is merely a question of time and patents.

Substitution vs. Adulteration.

Naturally the mind, active and progressive, and desirous of acquiring competency or wealth, is ever on the alert for novelty; and, such is the universal eagerness to discover something new, that inventive genius is continually prompted to devise unusual varieties of merchandise, or originate fresh methods of maanufacture which shall prove attractive to the public and profitable to the projector.

The principle is manifested in two distinct classes of producers. The one seeks only to cheapen common articles of commerce by adulteration, without reducing the amount of their consumption or their market prices. The other endeavors to manufacture a product or provide a method, quite as valuable and satisfactory, that may supersede some ordinary household necessity or luxuary, without causing injury to the consumer and that will be more economical in its cost.

When Murray, in 1867, invented "butterine," and sold it as a substitute for dairy butter, he could hardly be charged with an adulteration of the genuine article. The error committed was in the endeavor to palm it off upon the public by dealers for real butter. Butterine, in itself, if properly made, is not deleterious, and contains nothing that may not be freely used in the preparation of food, either separately or in combination. The practices of dishonest dealers, however, and the interests of dairymen, demanded the interference of the Government in order to distinguish the one product from the other.

Considerable opposition was made to the introduction of cottonseed oil into culinary operations, on the ground of its unwholesomeness. The objections to it on this score are purely imaginative. For a long period it has served as a harmless substitute for olive oil, and it has also been used in the manufacture of factitious lard. No evidence has yet been adduced that should condemn it as a substitute for other unctuous fluids in common household use. The prejudice against it will eventually vanish. A mixture of it with beef-suet or lard will improve its density, but not its original quality.

Much was said, a few years ago, about the introduction of glucose as a substitute for cane sugar in the arts and manufactures. There seemed to be an impression that it was an adulteration, and it met with a marked opposition as something hurtful; but that idea was entirely erroneous. It was only an inferior sort of sugar, but one entitled to the same fair consideration that has always been accorded to the product of beet root or sorghum, for it does not contain a single injurious element. Anyone can make it and test its qualities. The process is very simple. Add one part of starch to twelve parts of water, and let the mixture stand two months, when it will yield forty-eight parts of sugar, twenenty-two parts of starch, and twenty-four parts of gum, with a loss of six parts by evaporation or waste.

No invention is, therefore, to be despised, as none should be denounced until it has proved itself unworthy of public acceptance by its wretched inferiority as a substitute, or a positive injury to health as an adulteration of ordinary articles of food or beverages. Science and investigation are constantly engaged in revealing new materials pnd methods for the preparation of the necessaries and luxuries of life, and very often, with great advantage to all classes of society, displacing many injurious vlands, and introducing those that tend to the maintenance of improved health and the prolongation of life.—*Chicago Journal.*

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Delicate Reaction for Aromatic Amines—New Coloring Matters Direct on the Fiber.

A. IHL.

In the oxidation of aromatic amines complicated condensation products, which are mostly beautiful coloring matters, are produced. This reaction is particularly simple in the case of bases containing the methyl group, which is oxidized to COH.

My intention was to Ose manganese dioxide as oxidizing agent, because all other agents are higher in price. With manganese dioxide alone, or with manganese dioxide and mineral acid no results were obtained. When organic acids were employed, however, the case was different. Here the manganese dioxide appears to give up the second atom of oxygen to the organic base, while the corresponding mangano-compound is formed. Much more delicate than the native pyrolusite, is the hydrated manganese peroxide, and lead peroxide. Of the organic acids which I used, acetic, oxalic, and tartaric acids may be mentioned.

The reactions which I obtained with the various amines differed and were highly surprising. The shades of the coloring matters differ with the different acids, so that in the formation of the coloring matter the acid itself, or the oxidation product, is necessary. Orthotoluidine oxalate (prepared by adding oxalic acid solution to orthotoluidine until the oily drops disappear), for example, in very dilute solution, when mixed with very finely pulverized manganese dioxide, gives a red color, which changes to green on heating and becomes a beautiful red on boiling. At the same time a black coloring matter, which dissolves in alcohol with a red color. These color reactions take place more rapidly and intensely when hydrated manganese peroxide or lead peroxide is used.

Xylidine acetate in very dilute solution, on the addition of some hydrated manganese peroxide or lead peroxide, immediately gives a beautiful reddish-violet color, which on standing continually becomes darker, while native manganese dioxide reacts only after some time, or upon the application of heat.

Dimethylaniline oxalate, diethylaniline acetate, like all aromatic amines in combination with organic acids in dilute solution, on addition of manganese dioxide, hydrated manganese peroxide, or lead peroxide, give the finest color reactions. The latter are as delicate as the reactions with calcium hypochloride, solution of potassium bichromate or ferric chloride.

These coloring matters may also be prepared by mixing, e. g., toluidine oxalate in a pasty form with manganese dioxide, and heating until the melt acquires a fiery yellowish red appearance. From this melt the coloring matters may be extracted by water and alcohol.

When wool is placed into a very dilute solution of toluidine or xylidine oxalate, with the addition of hydrated manganese peroxide or lead peroxide is heated to boiling, the fiber takes up all the coloring matter produced, and becomes black. After washing it remains fine dark brown in color. The attraction of these colors for the animal fiber is very great; they show no attraction for vegetable fibers. When a dilute solution of toluidine oxalate is boiled with manganese dioxide the clear solution on boiling dyes wool a beautiful reddish violet. From the residue a dark coloring matter may be extracted by alcohol.

In the same manner, by means of the various amines, or mixtures of the same fine shades of deep brown, reddish brown, and brownish black may be directly produced upon the filter. This method of dyeing will probably be of practical value because the colors obtained are quite fast to light and soap.—*Chem. Ztg.*

A New Constituent of Liver Oil.*

BY H. MARPMANN.

The author states that by washing liver oil with 95 per cent. alcohol he has obtained a peculiar substance, which is easily soluble in water, and insoluble in alcohol, ether and benzene. According to the age and color liver oil dissolves more or less readily in alcohol; but even when sixty parts of alcohol are used to one pint of oil a perfect solution is not obtained, there being always a residue of insoluble fat acids, which are dissolved by hot alcohol and by ether, but not by cold alcohol. As the substance in question is somewhat soluble in hot alcohol, the last traces of the insoluble compounds were washed out by means of cold alcohol, and the material worked upon was not the solution of oil in alcohol but the portion washed out of it on account of its insolubility.

The insoluble residue after repeated shaking with alcohol, was mixed with water and filtered. The portion soluble in water was, however, so small that the author is only able at present to give the general reactions of the aqueous solution. It had a faintly acid reaction, rotated polarized light to the left, gave with lead acetate and with tannic acid a slight turbidity, and was not altered by potassium ferrocyanide. A dilute solution gave with ferric chloride no reaction, but a concentrated solution assumed with it a dark yellow color, which upon boiling became blood red, and again yellow upon cooling. The solution upon boiling was not changed by strong nitric acid, ammonia, or potassium hydrate. On the other hand it reduced alkaline copper solution. Upon mixing the solution with orcin and hydrochloric acid in a poecelain dish, and evaporating on a water bath to dryness there remained a brown residue having a metallic luster. This dissolved in alcohol with a dark brown color, ann solution was colored gray-brown by ammonia. By this last reaction this constituent of liver oil soluble in water is distinguished from varieties of gum, since gum gives with orcin a green residue that dissolves in alcohol with a greenish yellow color, and this solution when treated with ammonia is colored yellow, with a tinge of greenish violet.

According to the rotatory power of the new substance and its behavior towards Fehling's solution it might have been supposed to be gum, or an albumenoid or a sugar. For its qualitative distinction from any of these compounds the author found the orcin test most suitable, and he therefore describes the reaction somewhat in detail.

Orcin is the chromogen of various coloring matters and is obtained from species of roecella and variolaria by boiling with milk of lime, and extraction of the neutralized and evaporated filtrate with alcohol, from which it crystallizes out in colorless crystals. The orcin is freely soluble in water, and is readily altered on the addition of hydrochloric acid. Upon evaporating such a solution on a water bath the residue is of a beautiful red color; this residue dissolves in alcohol with a rose color, which is changed to a very beautiful violet upon the addition of a few drops of ammonia solution. Small quantities of organic substances modify these color reactions very considerably, so that orcin constitutes an important reagent for such bodies, especially for carbohydrates.

Constant colorations are also obtained upon boiling a dilute solution of a carbohydrate with an equal volume of hydrochloric acid and about one per cent. of orcin, and afterwards adding alcohol and ammonia. But these reactions do not take place so smoothly as those obtained when evaporation is practised.

The author prepared a solution of one gram of orcin in 100 c.c. of pure hydrochloric acid, of which he placed about 0·5 c.c. upon a porcelain dish, then added about an equal substance to be tested, and evaporated upon a water-bath. As soon as this small quantity of liquid became warm the color reaction began, the evaporated layer becoming colored at the margin. When it was dry alcohol was added, which dissolved the residue more or less completely. This alcoholic solution had a constant color for each substance, which upon the addition of a few drops of ammonia solution was altered more or less. Strong oxidizing agents, such as nitric acid, give very strong colorations with orcin, on which account such additions are to be avoided.

In the following table the color reactions of orcin with various substances tested are described:

	Evaporation residue.	Solution in alcohol.	Addition of ammonia.
Gum arabic	Green	Green-yellow	Green-yellow-violet
Gum tragacanth	Green-black	Green-yellow	Brown
Gum senegal	Greenish-blue	Green-yellow	Green-yellow
Potato starch	Red	Light brown	Violet yellow
Maranta starch	Red	Brown	Brown
Triticum starch	Yellow-red	Light brown	Brown
Milk sugar	Brown red	Yellow-brown	Greenish-brown
Beet sugar	Brown	Yellow-brown	Brown
Cane sugar	Brown	Yellow-brown	Brown
Gelatin	Red	Yellow-red	Violet
Pepsin	Yellow	Yellow	Dark-yellow
Pancreatin	Brown	Light brown	Rose-violet
Albumen, fresh	Yellow-brown	Light brown	Brown
Albumen, boiled, dissolved in pepsin	Yellow	Light brown	Brown
Albumen, boiled, dissolved in pancreatin	Brown	Light brown	Brown-violet
Residue from alcoholic solution of liver oil	Brown	Light brown	Brown-green
Pure orcin	Red	Rose	Violet

According to this comparison the residue from liver oil showed most resemblance to pancreatin and albumen that had been dissolved by pancreatin. This suggested the idea of seeking the new substance in fresh pancreatic liquor.

Fresh aqueous pressings from pancreas glands were precipitated with alcohol, the precipitate washed with alcohol, then dissolved in water, and again precipitated, washed and redissolved in water. The resulting solution rotated a polarized ray to the left and reduced alkaline copper solution. By evaporating over sulphuric acid a non-crystalline residue was obtained. It was therefore considered probable that the two substances from liver oil and pancreatic juice were indentical, and this assumption was made tolerably certain by a comparison of the influence of the two substances upon fixed oils. A few cubic centimeters of the solutions mixed with any of the fatty oils acted so that the oil could be temporarily emulsified with half its volume of water, and after several hours the oil did not separate pure, but with a somewhat milky turbidity.

The author states that he has found this new substance in all the samples of liver oil examined, both in the white oils and in the darkest varieties, from the most diverse commercial sources. He thinks it might be present in fresh livers in larger quantity, since liver oils deposit a quantity of mucus upon standing. But at present he has not examined any perfectly fresh oils and cannot therefore speak with certainty upon this point.

* From the *Pharmaceutische Centralhalle*.

The California Gray Whale.

BY JOHN DEAN CATON.

I first saw this interesting animal eighteen years ago, when running down the coast on the steamer Orizava. We then met them in considerable numbers when on the migration north. We were running but a few miles from the shore, and generally observed them on the seaward side, but sometimes on the shore side. Sometimes they appeared quite close to the ship, and did not seen to be much alarmed by the presence of the steamer. I have since taken pains to inform myself of the habits and mode of capture of this great sea mammal, and think I may safely say that it is the most interesting of all the species of whale known to inhabit the great seas, perhaps because it is the best understood.

It does not inhabit the distant depth of the broad oceans, but its habitat is confined to the coast line of the Pacific, from Cape St. Lucas at the southern extremity of the peninsula of California to Behring Sea, and even into the Artic Ocean, where it sports among the icebergs of the north with as much apparent pleasure as it rolls and tumbles among the great breakers in its southern range.

If the other species of whales are as strictly migratory as this, we lack the evidence to prove it. If others wander about into different seas, and even go from ocean to ocean, they do not move with that regularity and system which constitutes what we call migration. With these this habit is as regular as the recurrence of the season, and is no doubt as universal as is that of most aquatic birds.

Wintering in the south, this migration to the north commences in the spring, first with the males, who, having no domestic duties or cares to detain them, leisurely proceed northward, and they are soon followed by the females with their young, so soon as the latter are large enough to undertake the long journey. Not that either sex move in a body and together, for they are scattered along the coast for even months, though they generally move in schools of greater or less numbers, among which both males and females may occur. Undoubtedly the former were laggards, while the latter were of the advance of the females.

Of all the families of whales, of this alone has it been possible to study the breeding habits with satisfactory results.

Along the coast, in the southern part of their range, numerous lagoons are found indenting the shores, near the mouths or outlets of which bars occurs on which the surf break with great violence when the sea is rough, while the waters within are placid. These lagoons are the favorite breeding grounds of these whales, where they congregate in great numbers to bring forth their young, which occurs during the winter months, say from November till March. Although the fiercest fighters of all known whales, it has not been known that they are quarrelsome among themselves. So far as known peace and quiet prevail among all the members crowded together in the upper ends of these inclosures or lying-in hospitals. But few males have been observed to intrude themselves into the privacy of these retreats. The period of gestation is said to be about twelve months, and from an analogy impregnation takes place within a very few days after the young are brought forth. Elliot's exhaustive obervations show that such is the case with the fur seals, whose period of gestation is the same. Indeed, this must be so, when the period of gestation nearly corresponds with the year, else there could be no regularity in the time when the young are brought forth, but it would occur irregularly at all seasons of the year.

Another peculiarity of this whale is its fondness for sport or play. While this habit is solitary, it is distinctly manifest. Its favorite amusement is to sport in the breakers or the bars at the entrance to bays, lagoons and rivers, and the greater the breakers, the more do they seem to enjoy them, for there they play and gambol about, increasing the foam by the use of their powerful flukes, sometimes fairly turning somersaults, while at others they will cease apparent exertion, allowing themselves to be rolled and tossed about, the passive sport of the angry waters.

Of all the known species of whales, this is the most cunning, courageous, and vicious. So terrible is it, that with the old implements of harpoon and lance, but few whalemen would court an encounter with it, and it early received the name of the devil fish. I have no account that it ever maliciously attacked an unoffending object, yet when it found itself pursued where escape was difficult, even before it was struck, it has been known to turn upon pursuers and dash a boat to fragments with a single blow of its powerful flukes, and so has many a life been lost.

The inshore habits of these whales made it possible for the natives to attack and capture them even with their rude implements, but as I have met no account of this south of Washington Territory, and rarely except in the vicinity of the Strait of Fuca, it is not improbable that much of the belligerent disposition of the brute may have left him by the time he has pursued his migratory journey so far, and especially may the temper of the female have been improved when the defense of her offspring was no longer demanded. Their mode of capture was simple, though ingenious, but could have only met with disaster in their southern breeding grounds. Their mode was to attack with a large number of canoes, each armed with several men and provided with a number of inflated bladders, or air-tight sacks made of skins; to each of these was attached a light strong cord, at the other end of which was an arrow. When a whale was sighted, the swiftly-paddled fleet pursued and embraced every opportunity for hours to shoot their arrows into him, always throwing overboard the proper air sack. Soon these began to tell by impeding his course through the water and preventing him from diving to as great a depth as formerly and obstructing his progress when fleeing from his pursuers. Thus in a longer or shorter time he might be literally covered with arrows, and so obstructed and loaded down, so to speak, with the air sacks, that he became quite helpless and finally succumbed to his swarming enemies, when by their united efforts he was towed to the shore and utilized in their way. This was only rendered possible by the peculiar inshore habits of this species of the whale.

For many years this whale was hunted from large whaling ships, which were anchored at convenient places near those locations where observation had shown the animal was most likely to be found, and from the ships, whale boats were sent out to hunt for the game, and when captured they were towed to the ship and treated in the ordinary way. But this was an expensive mode of maintaining a whaling station, and as the objects of pursuit became scarce—notwithstanding the improved mode of capture by the use of the harpoon gun and bomb lance—the pursuit became unprofitable, when Yannee ingenuity proved equal to the emergency, and shore whaling stations were thought of. These are built upon the shore in sheltered places, but commanding an extensive seaward view.

Convenient structures are erected and equipped with all necessary implements and apparatus, with boats and arms for the capture of the whale, and everything on shore for treating the captive when brought to the shore. Near the station was a high lookout upon which a watchman was stationed with a well understood system of signals, by means of which he could telegraph the boats when far out to sea. Here the men built comfortable cabins where they lived with their families, and later, as the whales became scarce, they could pursue other avocations when their time could not be employed in the pursuit of their prey, which intervals increased as the whales became less and less abundant, till now many of these shore stations have been entirely abandoned. Here, in Monteroy, the first whaling station was established on shore in 1851, and later another was established both of which did a successful business for years, but within the last few years they have been entirely abandoned. Some of the buildings still remain, but they are fast going to decay, and the old whale boats may now be seen leaning up against the sheds, useless and abandoned. So at Carmal mission, a few miles across the peninsula; the absence of the game has compelled its desertion, and this is now true of most of the many whaling stations along this coast which once flourished. The station near the mouth of the bay of San Diego, I believe, is still kept up; at least when I passed it three years ago I saw two whales were on the ways.

Altogether we may well fear that this interesting species of this great family may before many years become extinct, as did the sea cow (unless governmental powers shall interpose to save them), which existed in incredible numbers about Behring Island when the great navigator was cast upon it, and where he found his grave in 1741.

The California whale may make a bolder and harder struggle for existence than did the rhytina, but it is rapidly going to utter extinction. While other species of the whale family have greatly diminished in numbers in all waters, still their habits protect them from final destruction. They have a wider range, and cannot be slaughtered on any exclusive breeding grounds. Here their nurseries are limited to particularly favored places which are known and accessible to all who choose to murder them, and it is a little remarkable that the State of California has not, long since, by stringent laws protected them, at least in the nurseries within her borders. If their captu

were confined to the open waters of the ocean and to a reasonable distance from the mouth of the lagoons in which they breed, we might well hope to see them multiply rather than fade away to final extinction. Certain interests encouraged the extinction of the vast herds of buffalo which once roamed over the plains and even the forests of our country, that the ranchmen might have better pasturage for their stock, but no interest can be promoted by the destruction of this whale, while great interests would be subserved by its protection and increase. Other animals are protected which are of no practical value except as mere spectacles, while their existence involves a positive loss by the destruction of vast numbers of food fishes.

I might have stated before, that the California whale, though not the largest of the family, is of good size, the largest measuring forty to fifty feet in length, though the average is considerably less than this. They are fairly robust in form and well covered with fat. They furnish no whalebone, but they produce from twenty to seventy barrels of oil, which, though not of the best quality, commands a good price in the market.

Solitary individuals of several other species of whales are frequently taken at the shore stations along this coast.

Asbestos Mines of Canada.

Among the rich natural resources of Canada, says the Toronto *Empire*, its mineral wealth is such as to place it in the first rank. Notably is this the case with regard to asbestos, that strange mineral fiber gifted with the property of resisting heat and flame. Canada shares with Italy the advantage of their being the two countries that supply the world with this rock cotton with its marvelous and useful properties. The magnitude and value of the output may be realized from the fact that the comparatively few Canadian mines now worked yield 4,000 tons yearly, and much of it is worth $80, $100 or even $120 a ton. Yet the mines are very far from being fully developed and the output could be very largely increased with the constantly increasing demands, as new uses are discovered or the old ones are better appreciated. The locality in which the asbestos occurs is restricted: it is found in veins in the serpentine of the pre-Cambrian formation, the "altered Quebec group," by Sir William Logan. All the mines at present worked are situated in the two counties of Megantic and Beauce in the Province of Quebec, though veins are known to exist in other counties of the same province, and discoveries may not improbably be made in parts of New Brunswick where there is the same geological formation. Besides being very productive, these veins contain asbestos which is not excelled for purity and quality by any in the world. Much of it when crushed out, is a pure white, flexible, silky fibre, well-fitted to be spun and wove for the more delicate fabrics for which it is used. Large works in England and the United States are supplied from these Canadian mines. The uses to which the asbestos is put are almost endless, whenever a flexible material is needed that will resist flame or acids, act as a non-conductor, or can be purified by heat. Perhaps it is still more largely used either in its textile form or in that of a cement formed from the coarser kinds, as a covering for boilers, steam pipes, etc. The loose fibre is employed as packing for pistons and steam joints, to close the breach of heavy guns, for filtering and as lint for wounds, in these uses being at once cleansed by heat. Spun and wove, it forms uninflammable theatre curtains, fire balloons, firemen's clothing, ropes for hot places and a a variety of other objects. Pulped it becomes paper and board, from the imperishable page of a register, through the graduation of lining and sheathing material, to the stout shelving for a costly library. And as a cement it is used for many purposes where a non-conductor of heat or protection against fire is required. These are only a few out of innumerable applications that are being constantly invented.

Testing Quinine Sulphate and Hydrochloride.

Helbig recommends the following method for determining the purity of these quinine salts:

A. In case of quinine sulphate, 1 gm is added to 15 cc. water, shaken for 5 minutes, and filtered. Of the chloride 1 gm. is mixed with a solution 0·4 gm. sodium sulphate dissolved in 1 cc. water, and added to 30 cc. water, shaken for 5 minutes and filtered. The filtrate is shaken for 5 minutes with 0·5 gms. sodium potassium tartrate, allowed to stand for 5 minutes and filtered, the precipitated tartrates are collected on a small filter and saved, the filtrate is:

B. divided into two parts, *a* and *b*, for the detection of quinidine and cinchonine. The portion *b* is set aside for further examination; to part *a* is added a drop of ammonium hydroxide:

1. The solution remains perfectly clear: absence of quinidine and cinchonine.

Examine according to E.

2. The solution is turbid: quinidine or cinchonine, or both, are present.

Examine according to C.

C. Detection of quinidine. The filtrate *a*, which was set aside, is mixed with 0·5 gms potassium iodide, shaken for five minutes and set aside the same length of time.

1. The liquid remains perfectly clear; absence of quinidine.

Examine according to D.

2. The liquid is turbid, or resinous particles have separated. In this case the test for cinchonine, according to D, must first be made, and when this is absent the turbidity indicates the presence of quinidine.

Examine according to E.

In the presence of cinchonine the portion (*b*) mentioned in B is filtered, and washed with distilled water, after which the thalleiochine reaction is made with chlorine water and ammonia, whereby an excess of chlorine water is to be avoided, while an excess of ammonia favors the reaction. An intense green coloration of the fluid indicates the presence of quinidine.

Examine according to E.

D—Detection of cinchonine. The liquid C, to which potassium iodide has been added is filtered, mixed with a few drops of ammonia, and allowed to stand for several minutes.

1. The liquor remains clear: absence of cinchonine.

Examine according to E.

2. The liquid is turbid: cinchonine.

Examine according to E.

E. Detection of cinchonidine. If in the previous examination cinchonine or quinidine has been found, the precipitate of tartrates (A) is carefully washed on a filter with 15-20 cc solution of Rochelle salt (1:20). When these alkaloids are absent washing is unnecessary.

The precipitated tartrates are then dissolved on the filter in dilute sulphuric acid (1 : 20), and to the filtrate is added 2 cc. ether and 1 cc. concentrated ammonia. The mixture is violently shaken for 1 minute, and left at rest for five minutes. This is repeated several times, for not more than ½ hour.

1. The ether and the sides of the tube remain clear: Absence of quinidine.

2. The ether and the sides of the tube become turbid: Presence of cinchonidine.

By this method 1 per cent quinidine and cinchonine, and ½ per cent cinchonidine, may be detected in quinine.—*Drog. Ztg.*

Arrowroot Manufacture in Queensland.

The machinery used for the manufacture of arrowroot is simple in the extreme, and is chiefly manufactured on the place, the shafts, pulleys, and engine work being, of course, foundry made. The first process shown was the roots being tipped, by two boys, into a long trough, through the length of which a shaft slowly revolved, and by means of wooden projecting pegs, the dirty roots were stirred up, and so cleaned, there being a constant stream of water running through the trough. These revolving pegs have a screw pitch, so that the roots are gradually moved towards the far end of the trough, where they are caught up by a sort of bucket pump, which elevates them some 12 feet, and drops them regularly into a hopper. As they fall to the bottom of this, they meet the grater, which is a drum of perforated galvanized iron, driven at great volocity. A small stream of water pours into this all the time, and the roots are quickly grated up into a brown-colored pulp. This mass of fiber and pulp falls into a cylinder of perforated iron, about 9 feet long, and 2 feet in diameter; through the length of this runs an axale, on which are two beaters, like the drum of a threshing machine; these smash up the fibrous pulp, exposing it to the action of the water, so as to enable all the starch and fine pulp to be washed out and squeezed through the perforations of the cylinder, while from the one end is discharged a constant stream of the dirty-looking fibrous refuse. The finer pulp, as squeezed through the perforations of this cylinder, is received in a precisely similar one below; here again the mass, now only pulp, is beaten up; but the perforations around this second drum being very small, only the starch and dirty-looking water pass through, the pulp being again discharged from the cloaca at the end. The stream of water and starch pouring from these cylinders is received in troughing, the starch being heavier than the water, all sinks to the bottom, and the water runs away: So far the work goes on automatically, no one but the two boys throwing in the roots troubling themselves about it. But towards the end of the day, the stream of water is stopped, and the arrowroot starch scraped up out of the trough, where it has accumulated in a layer seme inches in thickness, and is placed in large vats and tubes, all ranged in regular rows. Before being put into these tubs, it is passed through fine muslin sieves, and at the same time another stream of water is turned on. These fine sieves effectually clear it of any foreign matter, and it settles by the morning at the bottom of the vats, clean and white as snow. The water is drained from it, and the starch put into a centrifugal machine similar to what is used for sugar. This soon forces out the surplus water; but the perfect dryness is essential to its keeping qualities, so it is now carried to the drying-room, which is some 60 feet long, by 12 feet wide. Round the whole length of this runs a flue, heated by a special furnace, and over this are shelves of galvanized wire netting; on this netting is placed calico, and on this is spread out the starch. In this hothouse the moisture is quickly evaporated, and the arrowroot becomes crisp and grain-like. On fine days it is spread out in the sun on similar wire stages. All operations are now finished, and the flour is stowed away in bins in the storehouse, and there made up into the packets usually seen in the shops.

A New Explosive.

A New Britain (Conn.) special says: Rudolph Ericsson, a young Swede, is employed in a drug store in this city. Before he came to America he worked with his uncle in a gunpowder factory in the old country, and together they experimented to find a new explosive that would be as powerful as dynamite but less dangerous to handle. A few months ago young Ericsson received a letter from his uncle, in which the latter stated that his experiments had at last been successful. He enclosed the formula of the new explosive, and Rudolph got it patented under the name of "Extralite."

The new explosive looks like moist cornmeal. It can be made as easily as cornmeal can be cooked, and in much the same way. Last week Mr. Ericsson made a quantity of it in a stove in Curran's drug store, and then experimented with it before some persons whom he is trying to interest in its manufacture.

A hole two feet deep was drilled in the hardest rock to be found in a neighboring quarry. Three roles of the explosive, each containing three ounces, were tamped down in the hole, and connected with a fuse. The explosion shook the ground and the air was filled with flying boulders. The result achieved would have required two pounds of guncotton or one pound of dynamite, while only nine ounces of extralite were used. The manufacture of the explosive will be commenced in New Britain at once. The French Government is said to have paid 1,000,000 francs for the right to use it.

Kauri Gum Industry.

BY RALPH ROBINSON.

It was a fine summer morning in March when our little party of two ladies and one gentleman set off on a trip to the west coast of the North Islands. There being no railway or other conveyance to Kare Kare we had to do what others do under similar circumstances, namely, walk or ride (we preferred the former) the greatest portion of the way, carrying with us some provisions, tin cans for boiling and cooking, tin pannikins and plates, a few other articles and as few clothes as possible, the whole fastened up lightly in rugs or blankets and slung on the shoulders knapsack fashion. Having gone as far as we could by rail we alighted, and after adjusting our swags, as this kind of luggage is usually called, we commenced our journey over the lofty ranges separating the east coast from the west. The first two miles was through cleared and partly cultivated lands, apples and other fruits growing to great perfection on this clayey soil. Then a mile or so of ti-tree scrub, Leptosperman scoparium (Captain Cook's tea tree), bearing a large quantity of rosaceous white blossoms, even when only a few inches high. It grows quickly and attains a height of twenty feet or more, and is principally used as fuel. Here and there may be seen a settler's wooden house, comfortable enough in summer, but misery in wet weather; fortunately there is no snow so far north, and no frost to speak of. On reaching the bush proper (primeveal forest) a scene presents itself which gives the impression of even nature having gone wild. An undergrowth of almost impenetrable thickness, interlaced here and there with the supplejack ropes, Rhipogonum scandens (Maori name Kariao), the root of which is not very unlike sarsaparilla, and is sometimes substituted for it by herbalists. Then there is the Corynocarpus lævigata (Maori name—Karaka), with its glossy green leaves and yellow berries; the seeds are an irritant poison, producing convulsions and contortions of the limbs. When any of the Maori children had eaten any of these seeds, their parents used frequently to cure them by administering emetics and burying them up to the neck in earth, to prevent contortions. After being steeped in water several weeks, the seeds form a portion of the Maori diet. We also noted several tall specimens of Dacrydium cupressinum (Maori name—Rimu), with its fern-like foliage. The tree yields an astringent gum, and the bark is used by the natives as a styptic. In many cases the trees are encircled to the very top with the Metrosideros robusta (Maori name—Rata). In several cases the tree had succumbed and decayed, leaving a large hollow shell of interlaced rata. Here and there was left a noble kauri, the Dammara australis, one of which measured upward of 32 feet in circumference. The largest known specimen in the colony measures about 72 feet in circumference, reaches a height of 80 feet without a single branch, and is estimated to have taken about two thousand years to grow.

There were many other trees in an advanced state of decay, covered with parasites, which gave them a very weird appearance. Hillsides covered with tree ferns, Cyathæa medullaris (Maori name—Punga), hundreds or perhaps even thousands standing closely together, with here and there a nikau palm with its pinkish flowers or red berries attached to the base of the leaves. The umbrella and scented ferns were also in abundance. The first half of our journey being completed at a place known as Big Muddy Creek, but on this occasion a small stream of very clear water, we halted and soon had a supply of hot tea and and a fair supply of solids as lunch. The other half of the journey was very like the first half, until we reached the west coast with its rocks and boiling surf as far as the eye could see. It is common here on such excursions either to sleep out in the open air or to make use of an uninhabited gumdigger's hut, or disused whare, not always the most desirable abode, as in many cases you are brought in contact with too many bedfellows in the shape of fleas. But Kare Kare has its idle saw mill and workmen's empty huts, in one of which we took up our abode. The furniture consisted of a rough kind of table, a form, and one or two boxes. Our beds were made on the floor of the wiry climber, Lygodium articulatum (Maori name—Mangemange), a few titree twigs and rugs. Our cooking utensils were of the simplest description, tin cans (billies) and a few preserved meat tins playing a very important part. It was here we met with a camp of gum diggers and had the opportunity of gaining most of the little information here given relative to the Kauri gum industry. They go out in parties of three or more, carrying with them their spades, spears and bags, or they may have left their spades in the bush the night before. They usually went to their work between seven and eight o'clock in the morning, returning again about four o'clock in the afternoon, bringing with them what gum they had got. Friday was usually clearing up day, that is, they sorted and scraped their gum and bartered it in return for stores to the caretaker of the saw mill, drawing the balance in cash or cheque before going to town. The store keeper in his turn sold it to the gum merchant.

There are two kinds of gum fields, the summer and the winter. It is usual to work on the ridges, that is, the higher ground, during the winter months, because then the rain softens the hard clayey ground and makes the labor much lighter, but in summer, when the ridges become too hard and the low-lying swamps sufficiently dry, they transfer their operations to them. The gum is found much nearer the surface on the ranges than in the swamps, being only a few inches below the surface, and sometimes even projecting above, whilst in the swamps it may be found to a depth of several feet, the soil of the higher ground having been washed away with the heavy rains and deposited in the swamps, burying the gum deeper each successive year. The spear is a sharp-pointed steel rod with a wooden handle, and this is thrust down into the earth to ascertain if gum is present. If gum is proved to be present, then digging commences and the whole spot dug over until they suppose they have got all the gum out. It usually occurs in very irregular, rough pieces, about the size of a hen's egg, looking like a piece of very rough clay. This, when the outside is scraped off with a pocket-knife, is the Kauri gum usually met with in commerce, and worth about 3£s per cwt. on the spot. The smaller pieces are only washed and dried and do not bring nearly such a good price. As a rule the scrapings are not saved, not being worth more than 20s for a large sackful. They are used for lighting fires and making fire lighters. The gum fusing and burning soon sets the sticks and logs on fire, the gum giving off a white smoke and aromatic smell. Sometimes very large pieces, a cwt. or more, of transparent and almost colorless gum are found near the decayed root of a tree, probably the gum of the original tree. This brings a very much higher price, and is used for making personal ornaments. It is easily worked with a knife into any shape, and polished with a soft rag and kerosene oil. At times large masses of the gum may be found exuding from the living tree, but this gum is not so good for varnish making as the fossil gum. Three or four thousand men are usually engaged in digging the gum, and can earn in districts where the gum is fairly plentiful 30s to 40s a week, as the cost of living is very small they could easily save money: but, being cut off from all civilization whilst at work, they speedily spend and waste all their savings when they go to town. The gum is also found in considerable quantities, but of dark color, in the coal deposits, showing the antiquity of the kauri forests. There was 4,930 tons of gum exported from Auckland in 1886, the value of which was £257,653, being at the rate of rather less than £2 12s per cwt. The gum was dearer then than now, and there is the cost of packing, sorting, warehousing, carriage from the gum fields, and other expenses to be added to the first cost. The kauri gum industry is confined to the North Island, as it is only in the north that the kauri pine grows; thus the unemployed of Auckland are not so badly off as those in the south, always having the gum fields to fall back upon as a last resource; a last one on account of the hardships to be gone through, especially when there is a wife and family, and because an inexperienced digger may be a long time before he finds gum enough to find him with food. A very large portion of the kauri forests having passed into the hands of a syndicate, it is very probable the gum digging will be regulated, and in all likelihood the price of the gum will advance,

DYE MARKET

Note—*Our prices are for large lots except when otherwise specified, and buyers of small quantities must expect to pay an advance on these figures.*

The prices current will be found on page 50.

TUESDAY EVENING, Nov. 6, 1888.

The past week has been rather an off one in all brances of trade, and the market for dyes and dyestuffs has been no exception to the general rule. No important trading can be mentioned, and except in one or two instances no interesting features can be reported. There have been no special changes in the quotations of any of the articles in the list.

Albumen—The market has ruled steady in tone, with the demand reported as fair, taking all things into consideration. Quotations continue at 15@15½c for domestic and 17@20c for foreign. Egg is somewhat stronger on the other side, but no alteration in the ruling figures have been made. The trading has continued very fair with 65@70c quoted.

Aniline colors have been taken to a moderate degree, but there has continued an absence of special trading. No features can be noticed while prices are ruling at previous figures.

Alizarine—The demand during the past week has been of moderate proportions, and of a jobbing character, without feature. Values continue to be quoted at 18@20½c as to quantity and quality.

Bichromate of potash has continued to sell in jobbing parcels for consumption, but the market has by no means, been active. Our former quotations, continue to rule at 10½c on orders of five casks, while a slight advance over this figure is asked, where a smaller quantity is desired. Bichromate of soda has ruled without feature, at 8½c for lots of five casks or over.

Cochineal—Has only moved in the smallest way, with little or no interest taken in the limited business at hand. The nominal quotations are 30c for Teneriffe silver, 29@30c for black and 33c for gray black. These prices however could be shaded on firm offer.

Cutch—It is said that offers have been made, by a leading house in the trade, to furnish supplies at prices, say an eighth, below the ruling market quotations, and it is thought that some one is evidently endeavoring to bear the market. Buyers, however, have continued chary about taking hold of stock and, as a consequence, no actual business of any moment can be reported. The situation of the market is still peculiar and there seemingly continues to be an inability on the part of dealers to accurately "locate" the article. In a small jobbing way, sales have been consummated at prices in the neighborhood of 5½c but in a large way supplies could be obtained at 5⅛@5¼c.

Divi Divi—The market is unchanged from last week. No transactions of any moment are reported, and in the matter of prices, they are identical with those contained in our last issue. The market is featureless at $45 for supplies in a jobbing way.

Dyewoods—There has been some little movement in the supplies on dock, the following lots having been disposed of, namely, 300 tons St. Domingo at $28, 600 tons Monte Cristo at $29. We are told this cargo was refused by the original consignee, owing to quality, 300 tons Monte Cristo at $28, this was a damaged lot, 500 tons Jamaica at $31, and 150 tons Jamaica root at $27. In addition to the above, a cargo of St. Marc wood was sold, viz.: 400 tons at $26, also 350 tons Jamaica, to arrive, at $33, and we hear there is another cargo of 300 tons offered, at $31, the same to arrive, within 60 days. This was all taken by three concerns, and it is understood the lot is to be divided pro rata. The cargo of Gonaives which arrived since our last writing was previously sold on contract at $32. The stock now on spot comprises 250 tons St. Marc and 200 tons Port de Paix, and it is not thought that less than $40 would secure either lot. In addition to the above, there is available a parcel of 450 tons Jamaica, which was sold to arrive and rejected. As near as we can learn, there is nothing of importance now coming to this country. The only point open at the present time is Port de Paix, and no vessels are willing to charter for any of the ports and run the risk of the blockade, without being guaranteed protection from loss, which, of course, the importers are unable to do. It is fully expected that Port de Paix will also be shortly blockaded. There is nothing looked for, for the next three months at least In consequence of the above, the market is very strong. Considerable more inquiry has been felt for extracts, owing to the prospects of an advance in value, but manufacturers do not appear anxious for business. No change has been made in the ruling figures of a week ago, the following being quoted: 6½c for No. 1, 51° extract, with No. 2 at 5c; 42° No. 1 at 5⅝c and No. 2 at 5¼c. Imported and the highest grade domestic 51° continue to rule at 10c, fustic at 7½@9¼c for 51° according to quality. No. 1 solid is now held at 9½@11c, and No. 2 at 8¾c. Sumac is quotable at 3½@3¾c for domestic liquid 51°; for imported the prices are very much unsettled, and in buyers' favor. Hypernic at 12½@14c for 51° and 20@24c for solid.

Gambier—The market has continued very steady in tone, with some little business doing at prices which have been well upheld. No new sales for foreign account can be reported, but the shipments on previous transactions have been going on regularly. In all, there have been sales aggregating 300 tons, spot and to arrive, at quotations. For supplies on spot the ruling prices are 5⅝@5¾c, in a large way.

Indigo—The market has ruled rather quiet, the only feature being the sale of the damaged lot as previously reported, which took place on last Thursday. The prices realized were very fair, and it is said almost full value was paid. Former prices are ruling, Guatemalas being quoted at 70@85c and Bengals at 80@85c for low grades, $1 10@1 20 for medium and $1 25@1 40 for high grades. The trading has been on the small jobbing order.

Nutgalls—The demand for china galls is reported as rather light, with the market quoted as very steady, owing to the limited amount of supplies on spot. An arrival can be noted, but the lot on board was sold previous to being received. Quotations are ruling at 16@16½c, Aleppos are reported steady, though a sale of a small lot is noted at a price slightly under market quotations. No special demand has existed, while quotations are ruling at 15½@16c.

Prussiate of Potash has sold in the regular way for consumption to a moderate extent. The market is featureless, with values quoted at 19c for yellow, and 45c for red.

Sumac would appear to be much steadier in tone, owing to the firmer market on the other side, together with the fact that recent reports have been received, confirming former advices, that the crop would be only 60% of last years yield. To arrive $61 is now asked and we are informed that contracts have been consummated at the new figures. Supplies on spot are held at figures in the neighborhood of $63 with fair trading reported.

Tin crystals continue firm in tone, but the demand has slackened off to a slight degree. Quotations are unaltered at 17½@18c as to quality and quantity.

Use of Aniline Colors.

A convenient and accurate method for the use of aniline colors consists in making a strong solution of the color in glycerine and measuring out the quantity of this solution required to give an engine of stock the desired tint with a small "graduate" glass. Glycerine being a much better solvent for nearly all the anilines than water, much less trouble is experienced in making up the solution, and a stock solution of almost any strength may be prepared and allowed to stand at rest until all undissolved particles have settled, thus avoiding spots and pinheads of color in the finished sheet.

For ordinary purposes about 4 ounces of glycerine to the quart will be found sufficient. If a very strong color solution is required a large proportion of glycerine should be used. A solution prepared in this way will keep indefinitely without change, owing to the antiseptic nature of the glycerine, and it is always ready for use, and if made up on the same formula is always the same, as there is no danger, as with water alone, of the color not being completely dissolved. The solution can be diluted to any extent with water without precipitating the color, and the stock is much more evenly colored than by the use of a simple water solution. A small amount of glycerine added to the engine often improves the sheet quite materially, as it renders the stock less harsh. A sheet so treated for this reason will show a much better "rubbing test" than one made from the same stock without the use of glycerine. It also exerts a similar influence on the rosin size, rendering it more pliable without affecting its ink repelling quality. Glycerine also prevents to a considerable extent the oxidizing effect of the rosin on the fiber, and in that way adds both to the life of the sheet and to the permanence of its color.—*Paper Trade Journal.*

Recent Patents.

892,092. OIL FILTER. Issued Oct. 30, 1888.

Claim.—1. The combination, in an oil filter, of a filter casing containing a liquid with which the oil will not mix and of greater specific gravity than the oil to be cleansed, and a filtering medium arranged in said casing beneath the surface of the liquid, with a space between said medium and the wall of the casing, substantially as described, and for the purpose set forth.

2. The combination, with the oil filter having the submerged filter medium and the inlet-pipe below said mediums, of the exit pipe below said mediums, and the inverted, U-shaped pipe having both of its branches connected with said exit pipe, and a stop cock all substantially as described.

3. The combination, with the casing having the inlet pipe, of two cone-shaped plates having two openings, and two wire gauze screens, supported in said casing above said inlet pipe, substantially as described.

4. The combination, in an oil-filter, of a filter-casing, containing a volume of liquid of greater specific gravity than the oil to be cleansed, an inlet-pipe in the lower part thereof, and a filter-box, having its walls extended below the lower surface of its filtering material and arranged beneath the surface of said liquid, with a space between its edges and the wall of the casing, substantially as described.

5. The combination, in an oil-filter, of a filter-casing containing a volume of liquid of greater specific gravity than the oil to be cleansed, a filter-box arranged beneath said liquid and extending across the casing, with a space between its edges and the walls of the casing, a cone-shaped plate having an opening beneath said filter-box, and an inlet-pipe beneath said plate, as and for the purpose set forth.

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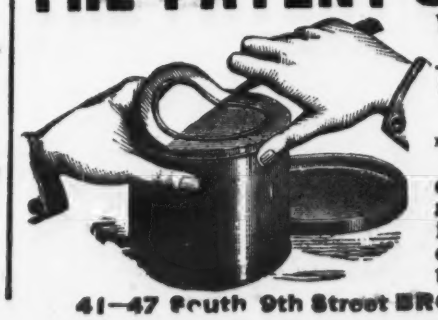
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